



International
Labour
Organization



▶ **Working Time
and Work-Life Balance
Around the World**





▶ **Working Time
and Work-Life Balance
Around the World**

Copyright © International Labour Organization 2022

First published 2022

Publications of the International Labour Organization (ILO) enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publishing (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The ILO welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

Working Time and Work-Life Balance Around the World. Geneva: International Labour Office, 2022

ISBN 978-92-2-037941-7 (print),

ISBN 978-92-2-037891-5 (web PDF)

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the ILO concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the ILO of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the ILO, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: : www.ilo.org/publns.

Produced by the Document and Publications Production, Printing and Distribution Unit (PRODOC) of the ILO.

Graphic and typographic design, layout and composition, printing, electronic publishing and distribution.

PRODOC endeavours to use paper sourced from forests managed in an environmentally sustainable and socially responsible manner.

Code: CHD-PMSERV

► Preface

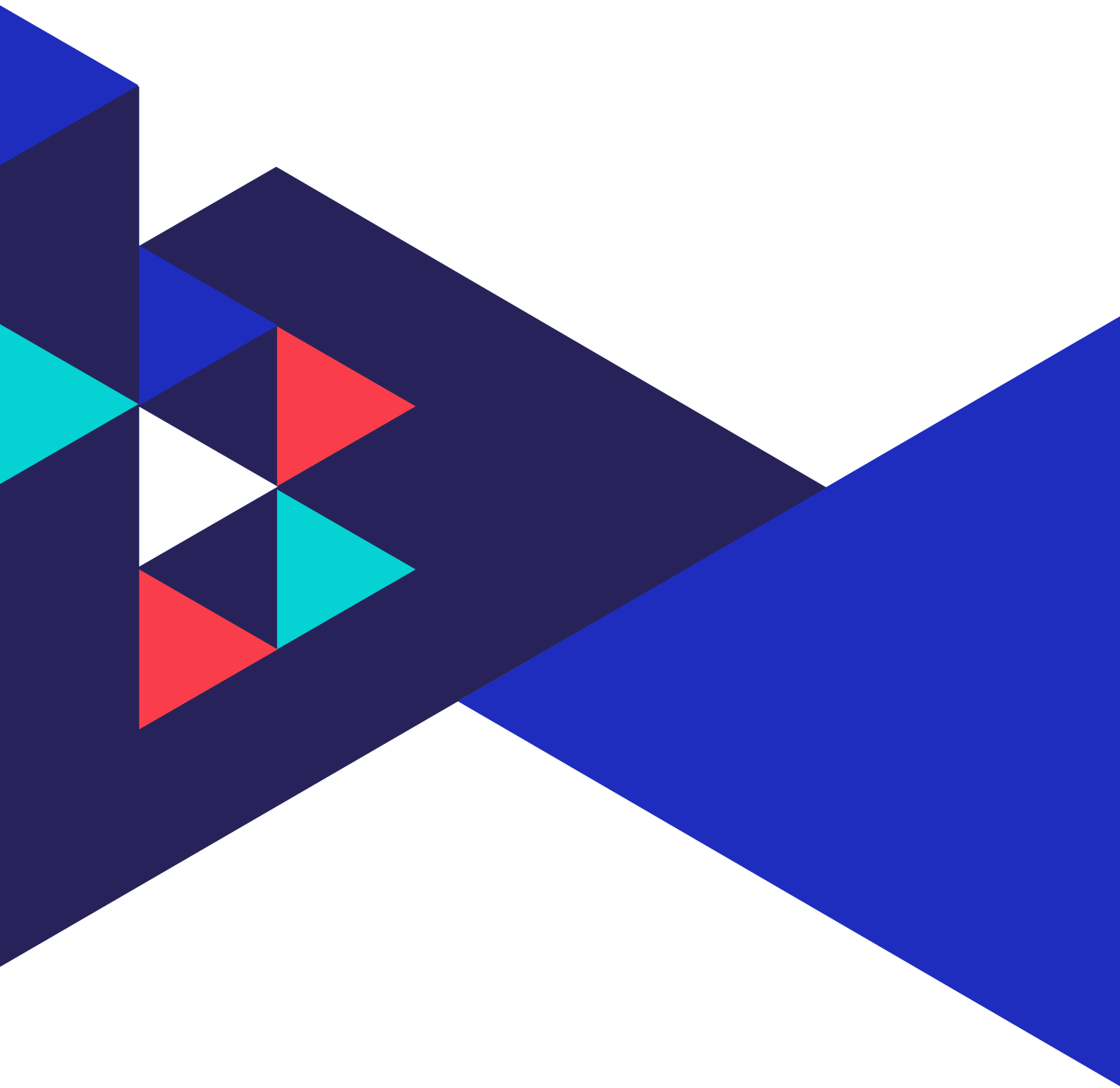
The number of hours worked, the way in which they are organized, and the availability of rest periods can significantly affect not only the quality of work, but also life outside the workplace. Working hours and the organization of work and rest periods can have a profound influence on the physical and mental health and well-being of workers, their safety at work and during the transit from their homes, and their earnings. Working time also has significant implications for enterprises in terms of their performance, productivity, and competitiveness. Decisions on working time issues can also have repercussions for the broader health of the economy, the competitiveness of industry, levels of employment and unemployment, the need for transport and other facilities, and the organization of public services. Working time, through measures such as short-time work/work sharing measures and flexible working hours are key tools that can be used to counter the threats posed by economic crises, while telework can reduce the social and economic impact of pandemics such as COVID-19. Therefore, it is not surprising that working time issues in one form or another are at the heart of most labour market reforms and evolutions taking place in the world today.

Because of its centrality, addressing working time is also one of the oldest concerns of social partners in addressing labour policy and regulation. The importance placed on working time issues informed the ILO Constitution. Part XIII of the Treaty of Versailles, on which the ILO Constitution is based, specifically recognized that the regulation of hours of work, including the establishment of a maximum working day and week, as among the measures that were urgently needed for the improvement of the conditions of labour prevailing at the time. This also echoed one of the demands of the labour movement at the dawn of the twentieth century. Conscious of the urgency of addressing the issue of very long hours of work, the International Labour Conference established the first international labour standard ever adopted, the Hours of Work (Industry) Convention, 1919 (No. 1), which enshrined the eight-hour workday as an international norm. Since that time, working time has remained an important focus of the ILO's work; indeed, one might even think of working time as a kind of "bridge" between the world of work at the time of the ILO's founding and the fast-paced world of work in the 21st Century.

This ILO global report on working time focuses on the actual number of hours of work, working-time arrangements, and their implications for work-life balance. It includes a range of statistics never before produced concerning the number of hours of work, both the situation as it existed immediately before the COVID-19 pandemic and also how it evolved during the pandemic. It then turns to the other half of the working-time equation, working time arrangements (which are also called work schedules), and reviews the most prominent types of working time arrangements that currently exist, such as shift work, part-time work and flexitime arrangements, and their effects on workers' work-life balance. Next, an in-depth analysis of the matches and mismatches between workers' actual hours of work and their preferred hours of work, as well as the effects of such matches and mismatches on work-life balance is provided. The report also reviews and analyses the working time-related crisis response measures deployed by governments and enterprises to keep organizations functioning and workers employed during the COVID-19 pandemic, such as work-sharing or short-time work schemes and home-based telework. Finally, the report summarizes the main conclusions of all the previous chapters and considers their implications for both public policies and enterprise policies regarding working time and work-life balance.

At a time when digital transformation in the world of work has a profound influence on working time and work organization, I trust that this report will be a useful reference tool for practitioners and decision-makers around the world. I also hope that it will encourage further initiatives toward combining the number of hours worked, the way they are organised, and rest periods in a manner that will improve the living and working conditions of human beings and their capacity to exercise greater choice and control over when they work.

Philippe Marcadent
Branch Chief
INWORK



► Contents

Preface	iii
Acknowledgements	xiii
1. Introduction	1
1.1. The importance of work-life balance in the world of work	1
1.2. The contents of this report	3
2. Working-time patterns and developments around the world	7
2.1. Introduction	7
2.2. Some Longitudinal Trends in Hours of Work	8
2.3. Average number of hours of work	11
2.3.1 Long hours of work	13
2.3.2 Long hours of work by employment status	15
2.3.3 Long hours of work, by economic sector and occupation	17
2.3.4 Evolution of long hours of work during the COVID-19 pandemic	20
2.3.5 Short hours of work, very short hours of work and time-related underemployment	22
2.3.6 Short and very short hours of work, by employment status	28
2.3.7 Short and very short hours of work, by economic sector and occupation	32
2.3.8 Evolution of short (part-time) hours of work during the COVID-19 pandemic	34
Reduction of full-time hours and the prevention of job losses	38
2.4. The unique situation of hours of work in the informal economy	41
2.5. Conclusion	48
2.6. References	49
3. Working-time arrangements and their effects on work-life balance	51
3.1. The standard workweek	51
3.2. Shift work (including night and weekend work)	52
3.3. Part-time work	56
3.3.1 The effects of part-time work on work-life balance	58
3.3.2 Very short hours of work and “on-call” working-time arrangements	59
3.3.3 The effects of on-call work on work-life balance	61
3.4. Flextime, including time-banking arrangements	62
3.4.1 The effects on work-life balance	64
3.5. Compressed workweeks	65
3.6. Hours-averaging schemes, including annualized hours	65
3.6.1 Effects on work-life balance	66
3.7. Conclusion	67
3.8. References	68
4. Working-time matches and mismatches between workers’ preferred and actual hours of work	73
4.1. Data and measures	74
4.2. Working-time mismatches around the globe: the recent “state of play”	74
4.2.1 Objective measures: underemployment and overemployment	75

4.2.2 Subjective measures: underemployment and overemployment	85
4.2.3 Gender differences in mismatches	92
4.2.4 Occupational skills and mismatches	93
4.2.5 Working-time mismatches and their effects on work-life balance	96
4.3. The effects of working-time mismatches on worker well-being	99
4.3.1 Life and job satisfaction	99
4.3.2 Physical health	99
4.3.3 Mental health	100
4.3.4 Effects of hours mismatches on employers: productivity, performance and retention	100
4.4. Conclusion	101
4.5. References	102
4.6. Appendix	105
5. Working time-related crisis response measures	109
5.1. Introduction	109
5.2. The use of working-time measures as crisis response	111
5.3. Working-time reduction and job retention	115
5.3.1 Relevance of working-time reduction	115
5.3.2 The financial crisis as a model	116
5.3.3 Regulation of job retention during the COVID-19 crisis	117
5.3.4 Job-retention provisions in practice	119
5.3.5 Working-time reductions compared	121
5.4. Use of working-time flexibility measures during the COVID-19 crisis	125
5.4.1 Examples of the use of short-term oriented working time-related flexibility instruments during the COVID-19 crisis	128
5.4.2 Examples for the use of life-phase instruments of working-time flexibility	129
5.5. Home-based telework (home office)	131
5.6. Conclusion	134
5.7. References	137
6. Conclusions and implications for policy	141
6.1. Main conclusions of the report	141
6.2. Implications for public policies and enterprise/organizational policies	143
6.2.1 Public policies (national and sectoral levels)	143
6.2.2 Enterprise/organizational policies	147
6.2.3 Conclusion	149
6.3. References	150
Annexes	
Annex 1. Classification of countries/territories by income group (per capita gross national income)	151
Annex 2. Classification of countries/territories by region	152
Annex 3. National sources: List of household surveys	153
Annex 3. National sources: List of household surveys (continued)	154
Annex 3. National sources: List of household surveys (continued)	155
Annex 3. National sources: List of household surveys (continued)	156
Annex 4. Methodological annex in relation to the regional and global estimates presented in Chapter 2	157

► Figures

Figure 1. Longitudinal trends in average annual hours of work, selected developed countries	8
Figure 2. Longitudinal trends in average annual hours of work, selected developing countries versus two key developed countries	9
Figure 3a. Average hours of work per week, by sex and geographic region (total employment, 2019, based on data from 160 countries)	11
Figure 3b. Average hours of work per week, by sex and economic sector (total employment, 2019)	12
Figure 3c. Average hours of work per week, by sex and major occupational group (total employment, 2019)	12
Figure 4a. Workers working more than 48 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)	13
Figure 4b. Workers working more than 48 hours per week, by detailed geographic region (total employment, 2019, in %)	14
Figure 5a. Employees working more than 48 hours per week, by sex, major geographic region and level of development (2019, in %)	15
Figure 5b. Employees working more than 48 hours per week, by sex and detailed geographic region (2019, in %)	16
Figure 6a. Self-employed (own-account) workers working more than 48 hours per week, by sex, major geographic region and level of development (2019, in %)	16
Figure 6b. Self-employed (own-account) workers working more than 48 hours per week (2019, in %), by sex and detailed geographic region	17
Figure 7. Workers working more than 48 hours per week, by economic sector and sex (total employment, 2019, in %)	17
Figure 8. Workers working more than 48 hours per week, by major occupational group and sex (total employment, 2019, in %)	20
Figure 9. Trends in workers working more than 48 hours per week in the first year of the COVID-19 pandemic (total employment, fourth quarter 2019 to fourth quarter 2020, in %), by sex and detailed geographic region	21
Figure 10a. Workers working less than 35 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)	23
Figure 10b. Workers working less than 35 hours per week, by sex and detailed geographic region (total employment, in %)	23
Figure 11a. Workers working less than 20 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)	24
Figure 11b. Workers working less than 20 hours per week, by sex and detailed geographic region (total employment, in %)	25

► Figures (continued)

Figure 12a. Time-related underemployment among people working less than 35 or less than 20 hours per week, by major and detailed geographic region (total employment, 2019, in %)	26
Figure 12b. Time-related underemployment among women and men working less than 35 or less than 20 hours per week, by major and detailed geographic region (total employment, 2019, in %)	27
Figure 13a. Employees working less than 35 hours per week by sex, major geographic region and level of development (2019, in %)	28
Figure 13b. Employees working less than 35 hours per week, by sex and detailed geographic region (2019, in %)	29
Figure 14a. Self-employed (own-account) workers working less than 35 hours per week, by sex, major geographic region and level of development (2019, in %)	29
Figure 14b. Self-employed (own-account) workers working less than 35 hours per week, by sex and detailed geographic region (2019, in %)	30
Figure 15a. Employees working less than 20 hours per week, by sex, major geographic region, and level of development (2019, in %)	30
Figure 15b. Employees working less than 20 hours per week, by sex and detailed geographic region (2019, in %)	31
Figure 16a. Self-employed (own-account) workers working less than 20 hours per week, by sex, major geographic region, and level of development (2019, in %)	31
Figure 16b. Self-employed (own-account) workers working less than 20 hours per week, by sex and detailed geographic region (2019, in %)	32
Figure 17. Workers working less than 35 hours per week, by economic sector and sex (total employment, 2019, in %)	33
Figure 18. Workers working less than 20 hours per week, by economic sector and sex (total employment, 2019, in %)	33
Figure 19. Workers working less than 35 hours per week, by major occupational group and sex (total employment, 2019, in %)	34
Figure 20. Workers working less than 20 hours per week, by major occupational group and sex (total employment, 2019, in %)	34
Figure 21. Trends in workers working less than 35 hours per week during the first year of the COVID-19 pandemic (total employment, fourth quarter of 2019 to fourth quarter of 2020, in %), by sex and detailed geographic region	35
Figure 22. Percentage of workers working less than 35 hours per week during the COVID-19 pandemic	36
Figure 23. Transitions out of employment during the COVID-19 pandemic, Mexico	38
Figure 24. Composition of short-hours workers	40
Figure 25. Average number of hours of work per week, workers in formal and informal employment (in %, 2019)	41

Figure 26. Distribution of workers in formal and informal employment, by range of hours of work per week, region, country-income group and sex (in %, 2019)	42
Figure 27. Distribution of workers in formal and informal employment, by range of hours of work, region, country-income group and employment status (% , 2019)	44
Figure 28. Share of informal employment by range of hours of work (in %, 2019)	46
Figure 29. Percentage of workers working shifts, 2015	53
Figure 30. Percentage of workers working one or more nights per month, 2015	54
Figure 31a. Part-time employment as a percentage of total employment, selected countries or areas by country-income group, 2018–2019	57
Figure 31b. Trends in part-time work as a percentage of employment, 2010–2022	58
Figure 32. Type of work schedule, United States, 2002–2014	60
Figure 33. Fixed schedules versus flexible schedules, by geographic region and sex	63
Figure 34. Countries or areas ranked by underemployment rates, among employees and non-employees, in high- and middle-income groupings, using objective measures	82
Figure 35a. Countries or areas ranked by underemployment rates, among employees, in high- and middle-income groupings, using objective measures	83
Figure 35b. Countries or areas ranked by underemployment rates, among non-employees, in high- and middle-income groupings, using objective measures	84
Figure 36. Countries or areas ranked by underemployment and overemployment rates, among employees and non-employees, in high- and middle-income groupings, using subjective measure	89
Figure 37. Countries or areas ranked by underemployment rates, among employees, in high- and middle-income groupings, using subjective measure	90
Figure 38. Countries or areas ranked by underemployment rates, among non-employees in high- and middle-income groupings, using subjective measure	91
Figure 39. Gender and the subjective underemployment measure among employees and non-employees, high- and middle-income countries or areas	92
Figure 40. Objective measures of mismatch, by occupational skill level, high- and middle-income countries or areas and United States	94
Figure 41. Subjective measure of mismatch, by occupational skill level, high- and middle-income countries or areas and United States	95
Figure 42. Objective measures of over/underemployment and work interference with family, high- and middle-income countries or areas and United States	98
Figure A1. Mismatches by gender and employment status, based on national definitions, in all 37 ISSP survey countries or areas and United States	106
Figure A2. Mismatches by gender and employment status, based on ILO definition, in all 37 ISSP survey countries or areas and United States	107

► Figures (continued)

Figure 43. Growth rates of employment in the EU (in hours worked)	122
Figure 44. Change in hours of work per week, second quarter 2019 to second quarter 2020, EU countries, in hours and minutes	123
Figure 45. Decrease in hours of work by sector (EU, in %)	124
Figure 46. Share of employees with no and several degrees of working-time autonomy, 2015 and 2010	126
Figure A.4.1 Working time thresholds used to categorize workers based on their actual number of hours of work per week	157

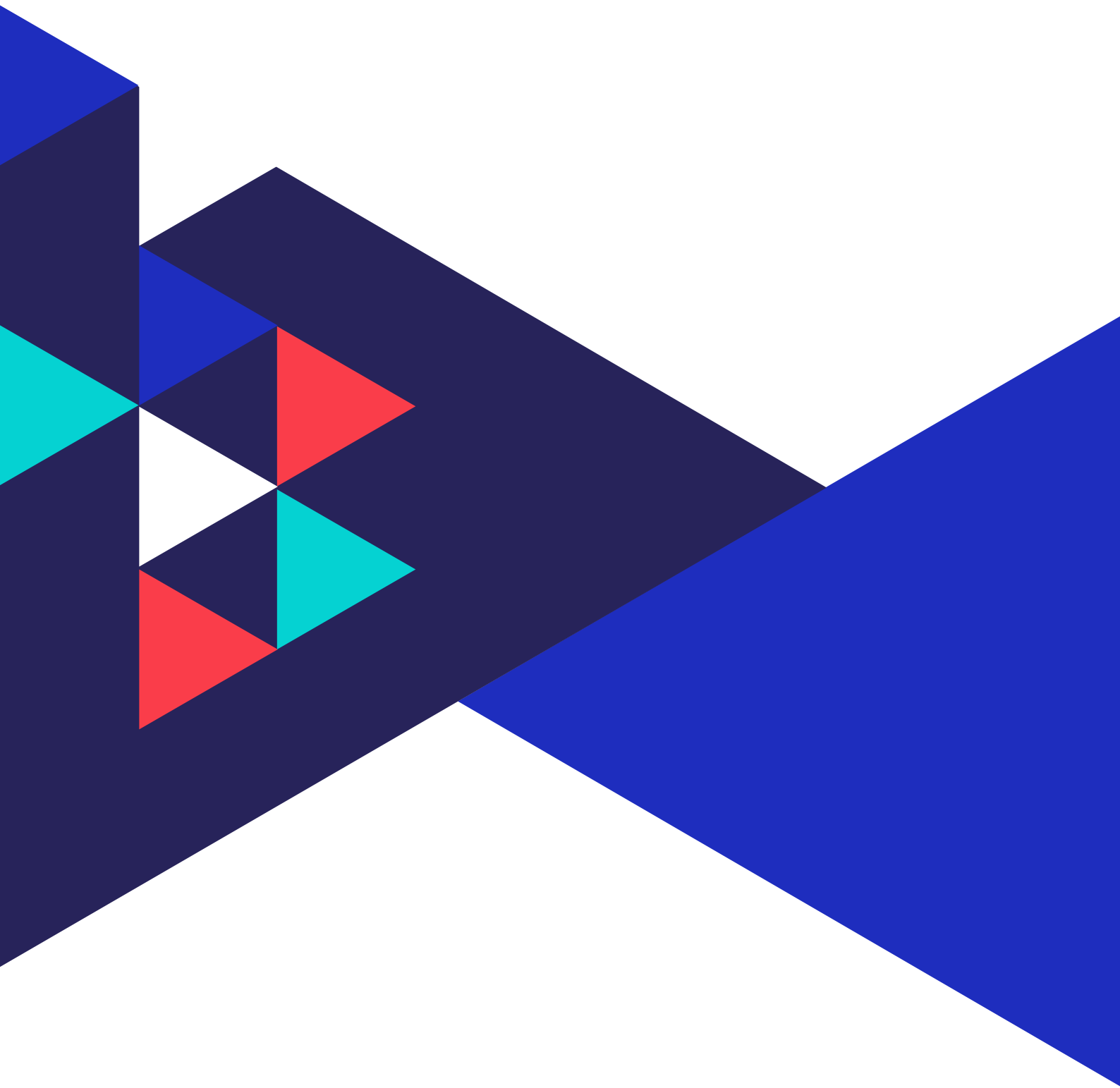
► Tables

Table 1. Flows into and out of part-time hours of work during the COVID-19 pandemic, Mexico and United States (first to second quarters 2020)	37
Table 2. Increase in the probability of keeping one's job following the onset of the COVID-19 pandemic with each additional hour of work per week, selected countries/areas (percentage points)	39
Table 3. Objective mismatch rates based on national and ILO definitions of part-time/full-time hours of work in all 37 ISSP survey countries or areas	75
Table 4. Objective mismatch rates based on national and ILO definitions, by regional clusters	78
Table 5. Ratio of underemployment to overemployment based on national and ILO definitions, by regional clusters	79
Table 6. Objective mismatch rates based on national and ILO definitions, by country-income level	80
Table 7. Subjective mismatch ratios in all 37 ISSP survey countries or areas	86
Table 8. Subjective mismatch, by cluster and country-income level	88
Table 9. Work-life balance and incidence of over- and underemployment, by regional cluster	97

► Boxes

Box 1. Working-time reduction in the Republic of Korea	9
Box 2. Hours of work and domestic workers	18
Box 3. Very short hours of work as a factor contributing to informality	46
Box 4. Scarcity of data	113
Box 5. Short time work/work-sharing and job-retention schemes in selected countries (OECD 2020; ETUC 2020)	118
Box 6. Relaxation of statutory working-time limits (maximum daily and/or weekly hours of work, rest periods, overtime)	127
Box 7. The collective agreement “Transformation” of the automotive supplier ZF Friedrichshafen	130
Box 8. Icelandic reduced workweek pilot	145



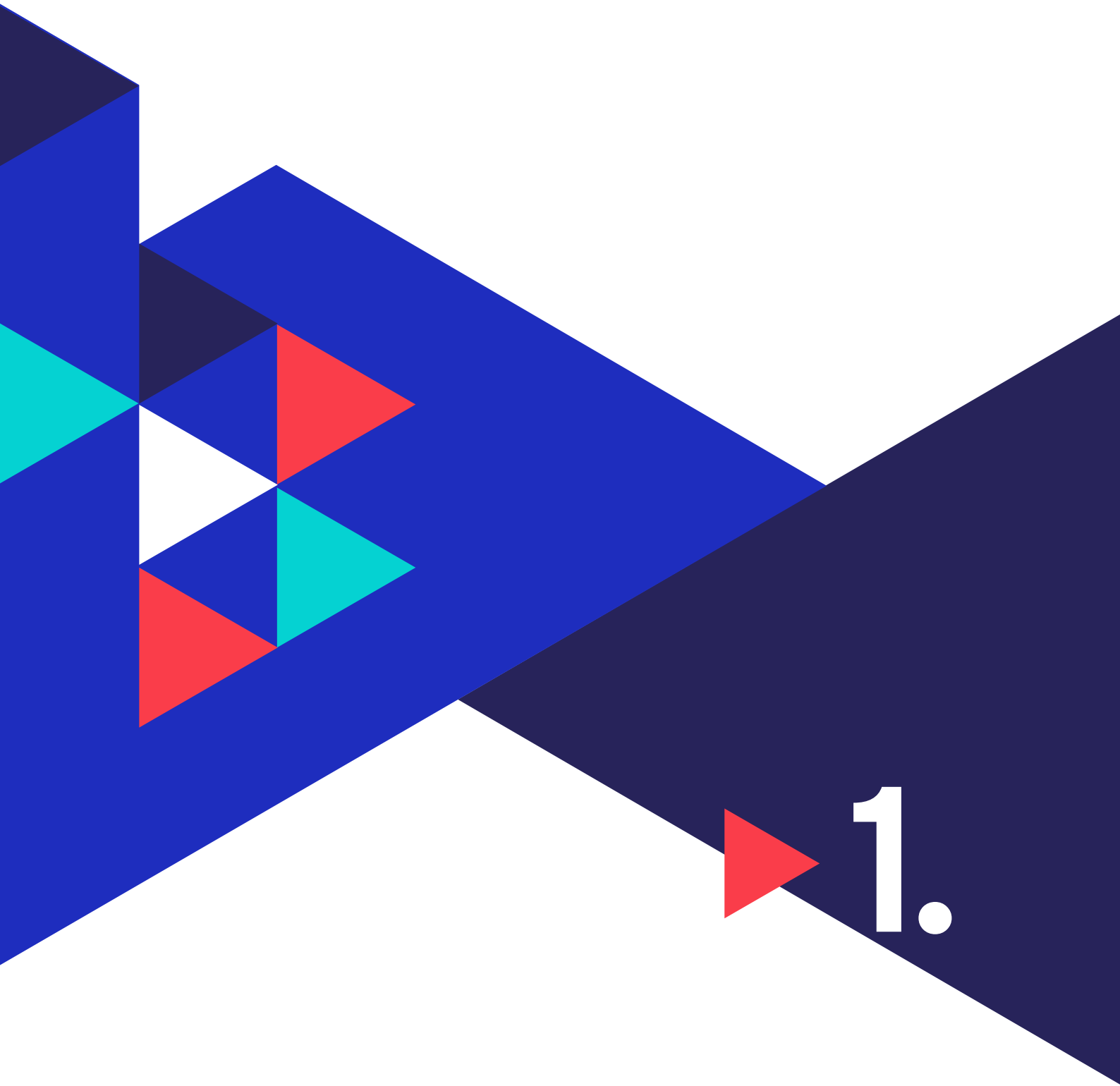


► Acknowledgements

Working Time and Work-Life Balance Around the World is the product of a broad collaborative effort among many different people, all of whom made important contributions to this report.

The design, development, and production of this report was managed by Jon C. Messenger, the Team Leader of the Working Conditions Group and the ILO's lead technical expert on working time. He also researched and prepared Chapters 1, 2, 3, and 6 of the report. Florence Bonnet, a quantitative analyst, compiled and prepared the vast majority of the statistical data presented throughout this report, as well as co-authoring Chapter 4. The other co-author of Chapter 4 is Professor Lonnie Golden of the Pennsylvania State University-Abington, USA, who began working on the analysis presented in this chapter during his time as a Visiting Scholar at the ILO. Dr. Angelika Kümmerling and Dr. Thomas Haipeter, both of the Institut Arbeit und Qualifikation (IAQ) at the University of Duisburg-Essen, Germany, are the co-authors of Chapter 5 of the report. Other contributors to this report included: Sergei Suarez Dillon Soares, a quantitative analyst, who prepared the section on the evolution of short (part-time) hours of work during the COVID-19 pandemic in Chapter 2, and Joseph Humphreys, a former INWORK staffer, who prepared the first draft of Chapter 3 of the report and also three text boxes presented in different chapters of the report. Last, but certainly not least, Anne Drougard, Claire Piper, Michael Rose, an external editor, and our ILO colleagues in PRODOC provided essential administrative support with editing, formatting, layout, and quality control in the preparation and production of the final version of this report.

The authors would also like to acknowledge Philippe Marcadent, Chief of the Inclusive Labour Markets, Labour Relations, and Working Conditions Branch, for his invaluable guidance, support, and flexibility throughout the long and often difficult process of preparing this report.



▶ 1.

1. Introduction

The ILO's Declaration of Philadelphia boldly asserts that "labour is not a commodity" (Art. I(a)). While on the surface this statement may appear to be rather idealistic, it simply recognizes the obvious fact that unlike tradable commodities (goods and services), workers are people with hopes, dreams and aspirations for themselves and their families. The Declaration of Philadelphia goes on to affirm that "all human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security, and equal opportunity" (Art. II(a)). In other words, paid work is about more than just meeting workers' material needs; they also need to have the opportunity to fulfill their personal lives as well. In today's world, we might say that this means that workers need to have a healthy work-life balance.

Working time has been at the heart of the work of the ILO since its origins, as demonstrated by the fact that the first ILO Convention – the Hours of Work (Industry) Convention, 1919 (No. 1) – concerned working time. Indeed, since the dawn of the Industrial Revolution, limiting the number of hours of work has been an important issue related to the protection of workers' health, including their well-being in a broader sense. The extremely long hours of work during this early period had social and health costs, leading to the movement to limit the number of hours of work – first for women and children and later for all workers – through the adoption of Convention No. 1.

Over the century that followed, working time continued to occupy a prominent place in labour and employment debates, not only the number of hours of work but also working-time arrangements or work schedules: how working hours are organized. Both aspects of working time – the number of hours of work and working-time arrangements (work schedules) – are key factors in determining how well workers can balance their paid work with their personal lives, including family responsibilities and other personal needs. For example, long hours of work (> 48 hours per week) have a negative effect on workers' work-life balance, while shorter hours of work can help to facilitate that balance. Working-time arrangements that have predictable or flexible schedules can also help to facilitate a better work-life balance, while those with unpredictable schedules have the opposite effect. In summary, both the number of hours of work and working-time arrangements have an impact on workers' work-life balance.

1.1. The importance of work-life balance in the world of work

While limiting the number of hours of work to protect workers' health has been an important issue for more than a century, the emergence of work-life balance as a significant social goal came much later, stemming from policymakers' increased awareness of the difficulty workers faced in reconciling their personal lives with their paid work. This awareness first arose from the decline of the "male breadwinner model" and the subsequent mass entry of women into the labour market, which led to a "dual earner model" in which all adults are assumed to be in paid work. The reduction in women's economic dependence on men was a positive development but it also brought new challenges, since many women now faced a "double shift": – a first shift of paid labour and a second shift of unpaid labour performed in the home (Hochschild and Machung 1989). This work-life conflict persists today, particularly for women, who continue to perform the majority of household and care tasks in all countries (ILO 2018). However, the conflict is also faced by men, perhaps increasingly so due to their slow but persistent catch-up in terms of family involvement (Harrington et al. 2016; Knop and Brewster 2016). In addition, demographic shifts associated with an ageing population and the burden of providing care for elderly family members have further intensified work-life conflict. Aside from the individual impacts of this development, such as stress, enterprises experience negative externalities from work-family conflict, including lower

productivity levels and absenteeism related to workers who struggle to care for their family members (Boushey 2016; Pitsenberger 2006). The coronavirus disease (COVID-19) pandemic has reinforced these concerns, at least in more developed countries. This has led many workers to seek new jobs that provide them with greater flexibility, in particular the ability to work remotely, and therefore the opportunity to achieve a better balance between their paid work and their personal lives, including more time for their families and more time to devote to their own personal interests as well. Improving and facilitating work-life balance has therefore become an increasing focus for policymakers in recent decades.

Better work-life balance is associated with a multitude of benefits for employees. For one, it has been empirically shown to facilitate increased job satisfaction and greater feelings of job security among those workers who report high levels of work-life balance (Burke and Greenglass 1999; Kossek and Ozeki 1998; Chimote and Srivastava 2013). A reasonable work-life balance also has significant positive effects on the psychological and physical health of employees. For example, an empirical analysis based on data from the United States National Study of the Changing Workforce (a nationally representative sample of working adults) found that work-life balance policies reduce stress levels (Halpern 2005). On the other hand, if workers are not able to achieve a reasonable work-life balance, they may experience negative health consequences and working hours are an important factor influencing workers' work-life balance. For example, long hours of work per week (more than 48) are associated with reduced levels of reported work-life balance and increased work-family conflict, particularly if such long hours are involuntary (Fagan et al. 2012). Indeed, Fagan et al. reviewed a large number of studies that have identified long hours of work as an important predictor of work-life conflict and concluded that work-family incompatibility, less engagement in community and civic life and lower fertility rates are all common outcomes of long hours of work. Moreover, such work-life imbalances may also reduce mental well-being, resulting in stress, anxiety and lower job and life satisfaction. For example, workers reporting substantial work-family conflict have been found to face higher levels of depression and poorer physical health and to be more likely to engage in heavy alcohol use (Frone, Russell and Barnes 1996). Overall, a healthy work-life balance has been shown to have a positive effect on the experience of work and is effective in preventing negative psychological and physiological health effects (Chimote and Srivastava 2013).

A healthy work-life balance among employees is also beneficial for employers and provides a number of positive effects for enterprises. Companies that implement work-life balance policies benefit from increased retention of current employees, improved recruitment, lower rates of absenteeism and higher productivity. For example, a study of 45 companies across North America that facilitated work-life balance found the presence of such policies to be associated with increased employee retention and improved recruitment (Williams et al. 2000) and similar findings were reported in a number of other studies (Maxwell et al. 2007; Porter and Ayman 2010). In a longitudinal assessment of the implementation of flexible scheduling in a public service organization, Dalton and Mesch (1990) found that absenteeism decreased significantly among employees in the experimental group but not the control group. These findings are supported by a meta-analysis of studies analysing flexible working schedules, which identified a significant negative relationship between the availability of flexible schedules and absenteeism (Baltes et al. 1999). Moreover, enterprises that implement policies focused on cultivating work-life balance report higher levels of productivity as well (Bond and Galinsky 2006). More specifically, a number of studies reveal a link between flexible work arrangements and higher levels of self-reported focus, concentration and motivation (Raabe 1996; Williams et al. 2000). Similarly, a case study of chartered accountants (Lewis 1997) found that working reduced hours on a voluntary basis resulted in greater self-reported productivity and efficiency. Finally, employers also benefit from employees that are more loyal: policies that empower workers to organize their hours based on their needs are linked to greater job satisfaction, loyalty and organizational commitment (Williams et al. 2000; Batt and Valcour 2003). An examination of 3,381 American workers revealed that flexible working time policies and childcare assistance were associated with employee loyalty for those with family responsibilities

(Roehling, Roehling and Moen 2001). The global teleworking experiment unleashed as a crisis response measure to cope with the COVID-19 pandemic and the subsequent post-pandemic “great resignation” phenomenon yielded new, powerful evidence that providing workers with greater flexibility in deciding when, where and how they work results in positive business outcomes, including improved productivity, and that conversely, restricting such flexibility results in substantial costs, including increased turnover. Therefore, there is a substantial amount of evidence that work–life balance policies provide significant benefits to enterprises, supporting the argument that such policies are a “win-win” for both employers and employees.

1.2. The contents of this report

This first-ever ILO global report on working time focuses on the actual number of hours of work, working-time arrangements (work schedules) and their implications for work–life balance. However, it must be emphasized that this report does not cover national laws related to working time, which were comprehensively reviewed by the ILO in 2018.¹

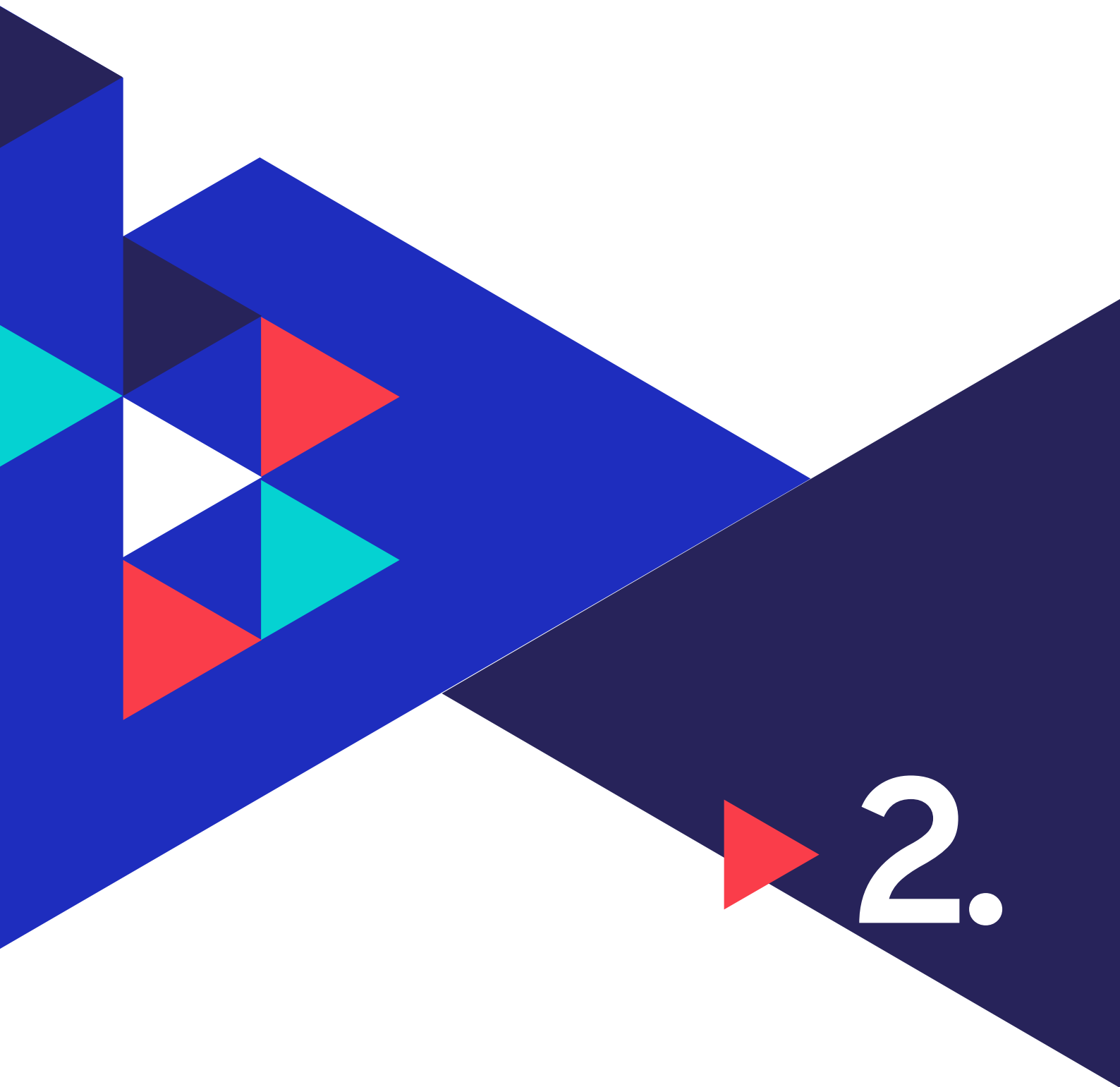
This report begins by reviewing the major global patterns and developments concerning the number of hours of work, both the situation as it existed immediately before the COVID-19 pandemic and also how it evolved during the pandemic (Ch. 2). It then turns to the other half of the working-time equation, working-time arrangements (work schedules), in order to review the different types of working-time arrangements (work schedules), such as shift work, part-time work and flextime arrangements, and their effects on workers’ work–life balance (Ch. 3). Next, the report presents an in-depth analysis of both matches and mismatches between workers’ actual hours of work and their preferred hours of work, as well as the effects of such matches and mismatches on work–life balance, based on a truly unique (pre-crisis) dataset, the International Social Survey Programme (ISSP) Work Orientations IV Module (2015) – the only source of internationally comparable data on workers’ preferences regarding their hours of work that extends beyond Europe (Ch. 4). The report then drills down more deeply into working-time developments during the pandemic by reviewing the working time-related crisis response measures deployed by governments and enterprises to keep organizations functioning and workers employed, such as work-sharing or short-time work schemes – which had already proved their worth during the last economic crisis, the Great Recession – and also home-based telework (Ch. 5). Finally, the report summarizes the main conclusions of Chapters 2 to 5 and considers their implications for both public policies and enterprise policies on working time and work–life balance (Ch. 6).

¹ This report does not cover national laws related to working time because legal developments regarding working time were comprehensively reviewed in the *General Survey concerning working-time instruments - Ensuring decent working time for the future* in 2018.

► References

- Baltes, Boris B., et al. 1999. "Flexible and Compressed Workweek Schedules: A Meta-Analysis of Their Effects on Work-Related Criteria". *Journal of Applied Psychology*, 84(4): 496– 513.
- Batt, Rosemary, and Monique Valcour. 2003. "Human Resource Practices as Predictors of Work Family Outcomes and Employee Turnover". *Industrial Relations: A Journal of Economy & Society* 42(2):189–220.
- Bond, James T., and Ellen Galinsky. 2006. *How Can Employers Increase Productivity and Retention of Entry-level, Hourly Employees?* Research Brief No. 2. Families and Work Institute.
- Boushey, Heather. 2016. *Finding Time: The Economics of Work-life Conflict*. Harvard University Press.
- Burke, Ronald J., and Esther Greenglass. 1999. "Work-Life Congruence and Work-Life Concerns among Nursing Staff". *Canadian Journal of Nursing Leadership* 12 (2): 21–29.
- Chimote, Niraj Kishore, and Virendra Srivastava. 2013. "Work-Life Balance Benefits: From the Perspective of Organizations and Employees". *IUP Journal of Management Research* 12(1): 62–73.
- Dalton, Dan R., and Debra J. Mesch. 1990. "The Impact of Flexible Scheduling on Employee Attendance and Turnover". *Administrative Science Quarterly* 35: 370–387.
- Fagan, Colette, et al. 2012. *The Influence of Working Time Arrangements on Work-Life Integration of "Balance": A Review of the Evidence*. Conditions of Work and Employment Series No. 32. ILO.
- Frone, Michael R., Marcia Russell and Grace M. Barnes. 1996. "Work-Family Conflict, Gender, and Health-Related Outcomes: A Study of Employed Parents in Two Community Samples". *Journal of Occupational Health Psychology* 1(1): 57–69.
- Harrington, Brad, et al. 2016. *The New Millennial Dad: Understanding the Paradox of Today's Fathers*. Boston College Center for Work & Family.
- Hochschild, Arlie, and Anne Machung. 1989. *The Second Shift: Working Parents and the Revolution at Home*. Penguin Books.
- ILO. 2018. *Care Work and Care Jobs for the Future of Decent Work*.
- Knop, Brian, and Karin L. Brewster. 2016. "Family Flexibility in Response to Economic Conditions: Fathers' Involvement in Child-Care Tasks". *Journal of Marriage and Family* 78(2): 283–292.
- Kossek, Ellen Ernst, and Cynthia Ozeki. 1998. "Work-Family Conflict, Policies, and the Job-Life Satisfaction Relationship: A Review and Directions for Organizational Behavior-Human Resources Research". *Journal of Applied Psychology* 83(2): 139–149.
- Krausz, Moshe, and Nechama Freibach. 1983. "Effects of Flexible Working Time for Employed Women Upon Satisfaction, Strains, and Absenteeism". *Journal of Occupational Psychology* 56(2): 155–159.
- Lewis, Suzan. 1997. "'Family Friendly' Employment Policies: A Route to Changing Organizational Culture or Playing About at the Margins?". *Gender, Work and Organization* 4(1): 13–24.
- Maxwell, Gill, et al. 2007. "The Incidence and Impact of Flexible Work Arrangements in Smaller Businesses". *Journal of Employee Relations* 29(2): 138–161.
- Pitsenberger, D. Jeanne. 2006. "Juggling Work and Elder Caregiving: Work-Life Balance for Aging American Workers". *AAOHN Journal* 54(4): 181–185.

- Porter, Stacey, and Roya Ayman. 2010. "Work Flexibility as a Mediator of the Relationship between Work-Family Conflict and Intention to Quit". *Journal of Management & Organization* 16(3): 411-424.
- Raabe, Phyllis Hutton. 1996. "Constructing Pluralistic Work and Career Arrangements". In *The Work-Life Challenge: Rethinking Employment*, edited by Suzan Lewis and Jeremy Lewis (Sage Publications), 128-141.
- Roehling, Patricia V., Mark V. Roehling and Phyllis Moen. 2001. "The Relationship between Work-Life Policies and Practices and Employee Loyalty: A Life Course Perspective". *Journal of Family and Economic Issues* 22(2): 141-170.
- Williams, Margaret L., et al . 2000. "Outcomes of Reduced Load Work Arrangements at Managerial and Professional Levels: Perspectives from Multiple Stakeholders". Paper presented at the annual meeting of the Academy of Management, Toronto, Canada.



2.

2. Working-time patterns and developments around the world

2.1. Introduction

The topic of working time can be divided into two main components: (a) the number of hours of work; and (b) the organization of those working hours, which is more commonly known either as working-time arrangements or work schedules. This chapter will focus on important patterns and developments with regard to hours of work – that is, the length or volume of working hours in both the formal economy and the informal economy.

The most prominent feature of working-time patterns and developments in today's world is the uneven distribution of hours of work. Because the distribution of hours of work does not cluster around the mean (that is, the legal working week) in many countries, working-time statistics that focus exclusively on average hours of work can be misleading indicators of the typical hours of work in a particular region, country, sector or occupation. While the traditional concern regarding regular long hours of work and their effects dating from the dawn of the Industrial Revolution remains a problem in some parts of the world and among some groups of workers, the phenomenon of short hours of work – often referred to as “part-time work” – has emerged as an issue in other parts of the world and among other groups of workers. Short (part-time) hours of work can potentially benefit work–life balance because they provide workers with more time for their personal lives, including their family responsibilities. However, short hours of work can potentially be a concern, particularly for those workers with very short hours of work, because they are associated with time-related underemployment² and limited or no benefit entitlements (for example, no social security benefits, no paid leave) and are often associated with unpredictable work schedules as well. Both long and short hours of work can present challenges for employers, too: in the case of long hours due to declining marginal productivity and in the case of short hours because part-time work can be more difficult to manage if business operations are based on a full-time logic (for example, scheduling shift work). This chapter will briefly discuss average hours of work, but it will focus primarily on both long and short hours of work, as well as the unique situation of hours of work in the informal economy.

² The time-related underemployment rate (TRU) is a measure of labour underutilization that provides information on the share of employed persons who are willing and available to increase their working time (for production within the SNA production boundary) and who have worked fewer hours than a specified time threshold during the reference period. TRU signals inadequate employment (ILO 2008).

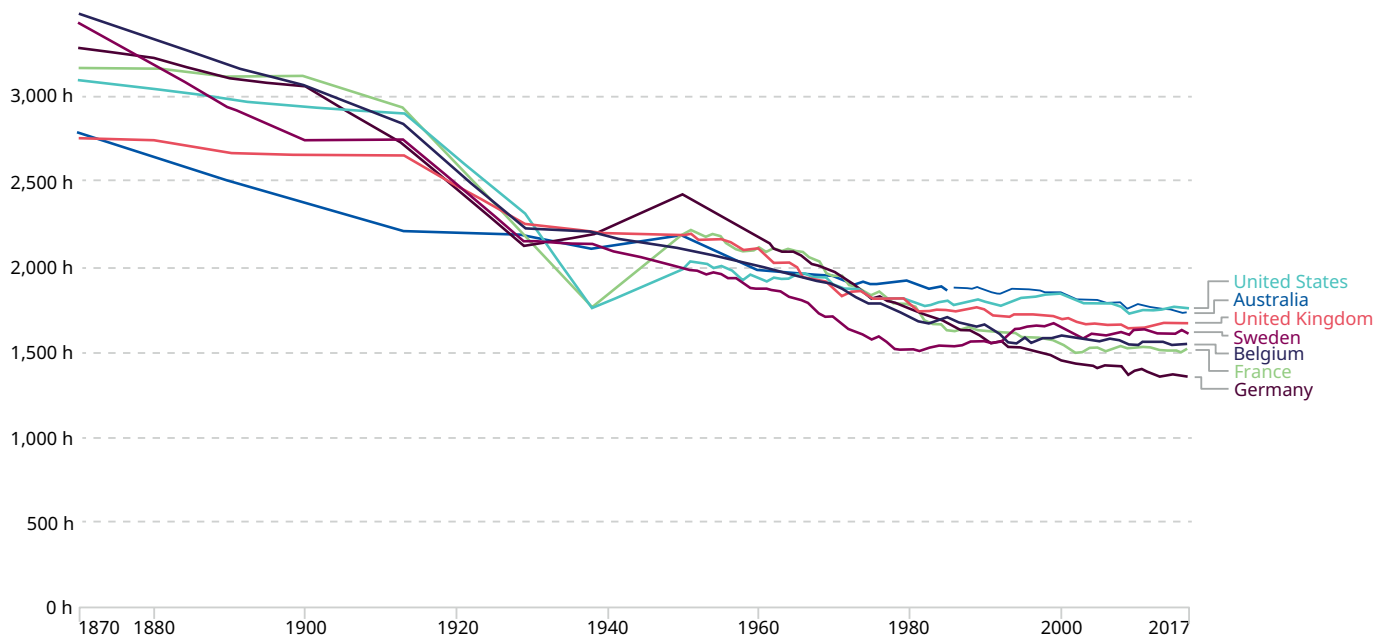
2.2. Some Longitudinal Trends in Hours of Work

Before reviewing the current situation regarding hours of work, it is interesting to briefly consider how we got to where we are at the present time. The two figures below (Figures 1 and 2) show longitudinal trends in average annual hours of work per workers in selected developed countries and in selected developing countries in comparison with key developed countries. The two figures are dramatically different. Figure 1 shows a clear downward trend from the late 1800's through most of the 20th Century in all the developed countries shown in this graph, before flattening out towards the end of the century (with the notable exception of Germany) or even turning slightly upwards (e.g., Sweden, the United States). In stark contrast, Figure 2, which begins much later (the 1950's) due to the lack of available data on working hours in developing countries prior to that time, shows much longer hours in those developing countries shown in the graph (Brazil, China, and India), with only one of them showing a downward trend (Brazil) which began in the 1970's. In fact, the average annual working hours per worker actually increased in China as that country industrialized before levelling off in the early 21st Century. Average annual working hours increased even more dramatically in the Republic of Korea as that country industrialized, before beginning to decline in the 1990's as Korea became fully developed and declining even more dramatically in the 2000's with the adoption of a 40-hour standard workweek in that country, not including overtime (see the text box below for details).

► **Figure 1. Longitudinal trends in average annual working hours in selected developed countries**

Annual working hours per worker

Average working hours per worker over an entire year. Before 1950 the data corresponds only to full-time production workers (non-agricultural activities). Starting in 1950 estimates cover total hours worked in the economy as measured primarily from National Accounts data.



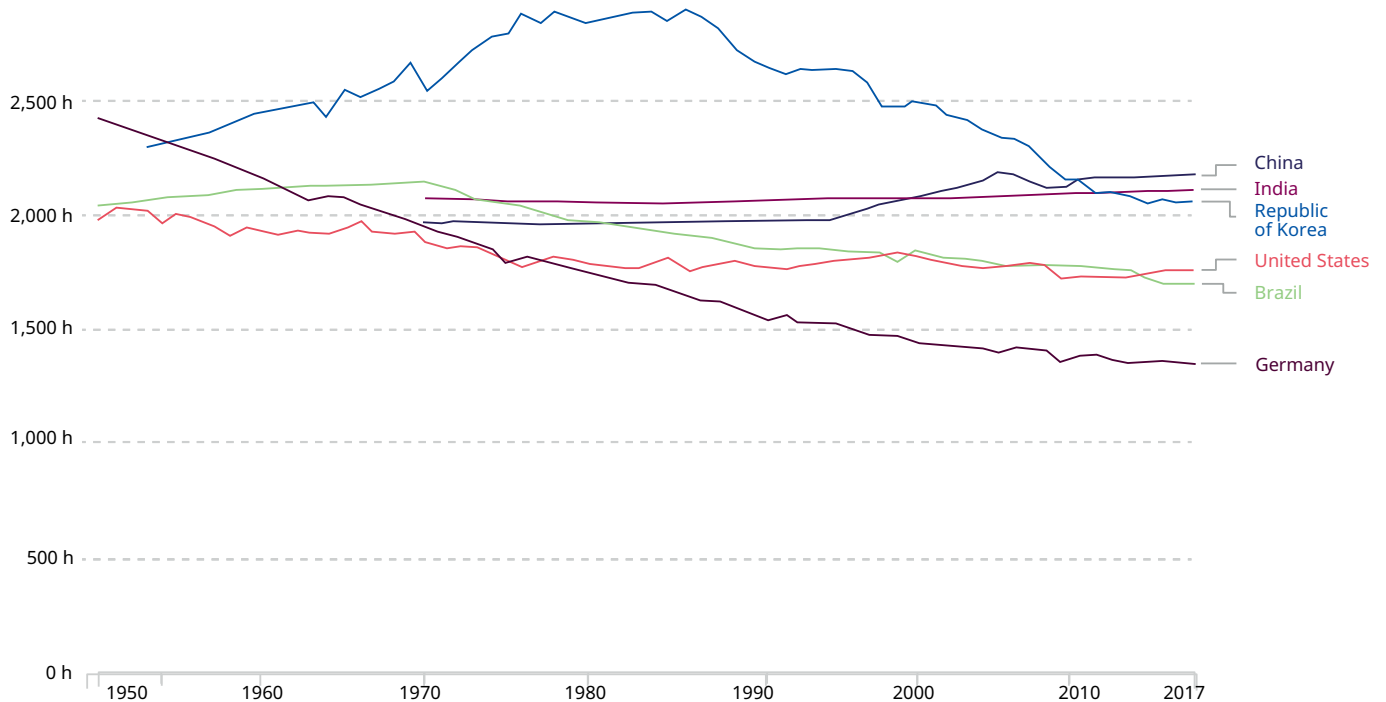
Source: Huberman & Minns (2007) and PWT 9.1 (2019)

Note: We plot the data from Huberman & Minns (2007) and extend coverage using an updated vintage of PWT, which uses the same underlying source. Comparisons between countries are limited due to differences in measurement.

► **Figure 2. Longitudinal trends in average annual hours of work, selected developing countries versus two key developed countries**

Annual working hours per worker

Average working hours per worker over an entire year. Before 1950 the data corresponds only to full-time production workers (non-agricultural activities). Starting in 1950 estimates cover total hours worked in the economy as measured from primarily National Accounts data.



Source: Huberman & Minns (2007) and PWT 9.1 (2019)

Note: We plot the data from Huberman & Minns (2007) and extend coverage using an updated vintage of PWT, which uses the same underlying source. Comparisons between countries are limited due to differences in measurement.

► Box 1. Working-time reduction in the Republic of Korea

Introduction of five-day week

The Republic of Korea, a country with historically long hours of work, introduced a five-day working policy in 2004 through its revised Labour Standards Act, which effectively made Saturday an official non-workday, set an 8-hour normal workday and reduced the standard legal workweek from 44 to 40 hours. Prior to that labour law reform, the average annual hours of work per employed person in the Republic of Korea was 2,392, which was by far the longest in any OECD country (ILO 2016a). In 2019, prior to the COVID-19 pandemic, the figure was 1,967 hours per year (OECD.Stat 2021). The labour law reform aimed to address the negative effects associated with excessively long hours of work.

► Box 1. Working-time reduction in the Republic of Korea (continued)**Implementation**

A phased approach was used to implement the workweek reduction. In 2004, all organizations with 1,000 employees or more were required to implement a 40-hour workweek, followed in 2005 by organizations with 300 employees or more (Rudolf 2014). In 2005, organizations with 100 or more employees implemented the 40-hour workweek, followed by organizations with 50 or more employees in 2007, organizations with 20 or more employees in 2008 and organizations with 5–20 employees in 2011. Organizations with less than 5 employees were excluded. The Government encouraged the public sector to take the lead in this initiative and share best practices on the implementation of the working-time reduction. For example, the central and local governments phased in the new workweek by giving employees every other Saturday off for one year and then fully implementing the five-day week.

The 40-hour workweek law allowed for the workday to be extended to 12 hours as long as there was agreement between employee and employer. To help employers make the transition, the first four hours of overtime were charged at a 25 per cent extra hourly wage and thereafter a 50 per cent extra hourly wage (Republic of Korea 2009). After three years, all overtime was set at 50 per cent of the employee's wage for all extra hours above 40 hours per week. Also, if flexible working-time arrangements were agreed between the parties, the overtime premium could be avoided. For example, if an employee worked 48 hours in a given week, no overtime pay would be paid for that week as long as the number of hours they worked per week averaged 40 over a three-month period including that week.

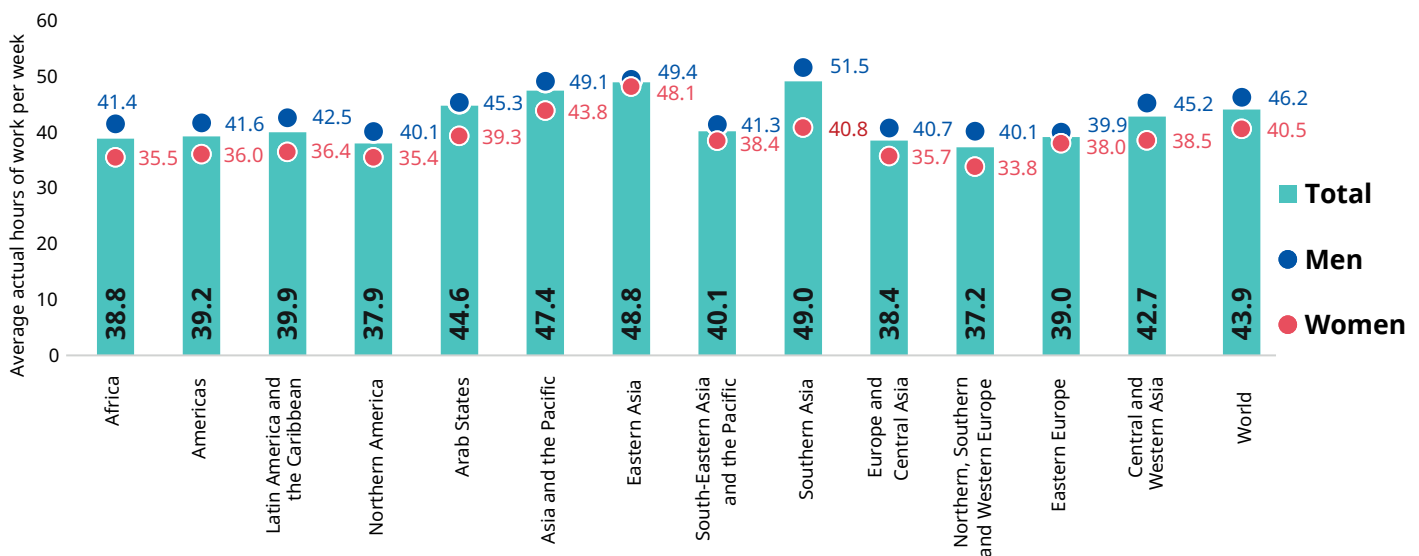
Economic outcomes

In 2012, according to the Korea Labour and Society Institute, total hours of work decreased from 1.87 billion to 1.64 billion and jobs steadily increased, rising by 12.3 per cent from 21.57 million in 2001 to 24.24 million in 2011 (Yi-Guen 2012). The estimated effect on actual hours of work was a decline in the number of hours of work per week per person, from 50.4 in 2001 to 43.9 in 2011 (Yi-Guen 2012). In addition, for every 10 per cent decrease in hours of work per week there was a corresponding 9.7 per cent increase in employment, which is higher than the 5–6 per cent increase typically associated with working-time reductions (Yi-Guen 2012). Although as of 2012 more than half (53.5 per cent) of Korean employees had a standard five-day workweek, the remaining employees are members of organizations with five employees or less and therefore they are still under the legal standard of a 44-hour workweek.

2.3. Average number of hours of work

The classical statistical indicator regarding working time is the average number of hours of work per week – either actual hours or usual hours in the main job.³ We begin our global overview of hours of work here.

► **Figure 3a. Average hours of work per week, by sex and geographic region (total employment, 2019, based on data from 160 countries⁴)**

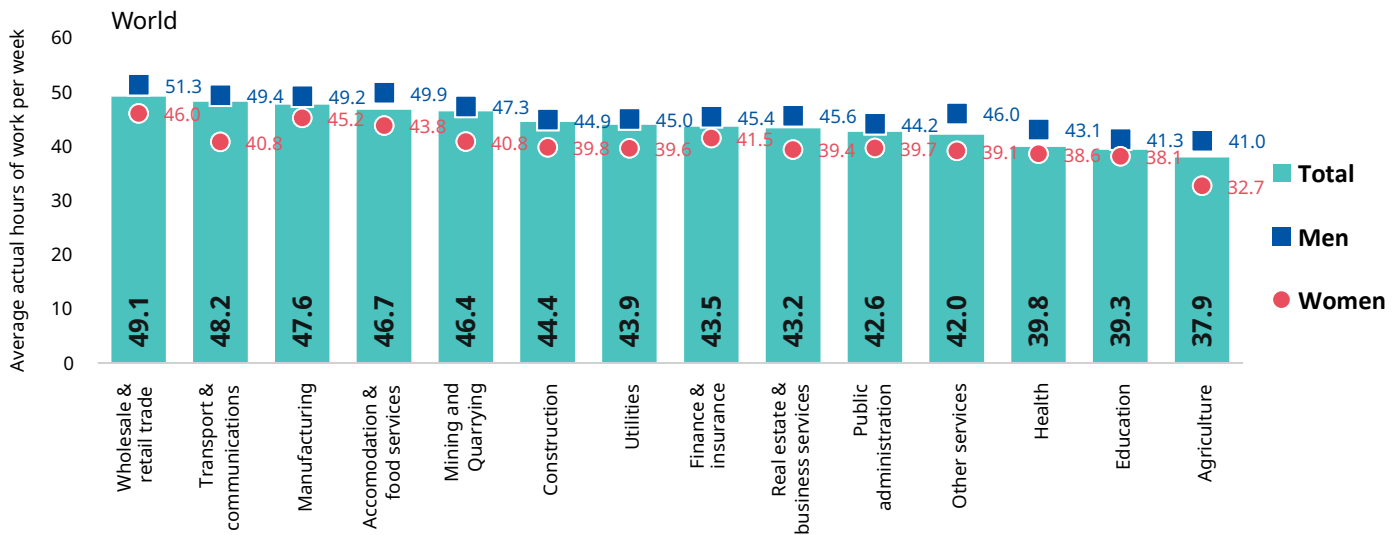


As shown in figure 3a, the average number of hours of work per week in paid work globally was approximately 43.9 hours prior to the COVID-19 pandemic (2019 or latest available year). Average hours of work per week were clearly the longest in Asia and the Pacific (47.4), particularly in Southern Asia (49.0) and Eastern Asia (48.8). In contrast, the shortest average hours of work per week are found in North America (37.9) and Europe and Central Asia (38.4), particularly in Northern, Southern and Western Europe (37.2). The other regions of the world lie somewhere between these two extremes. From a gender perspective, the average number of hours of paid work per week were somewhat higher for men than for women, at 46.2 versus 40.5. However, it is important to keep in mind that this gender difference in paid work does not reflect the substantially greater amount of time that women devote to unpaid household tasks and care work compared to men.

3 Data on actual hours of work focuses on measuring the hours worked in a particular week (the reference week), while data on usual hours of work attempts to capture a respondent's typical (usual) number of hours of work per week. The working-hours data presented in this chapter uses data on actual hours of work per week, unless otherwise specified.

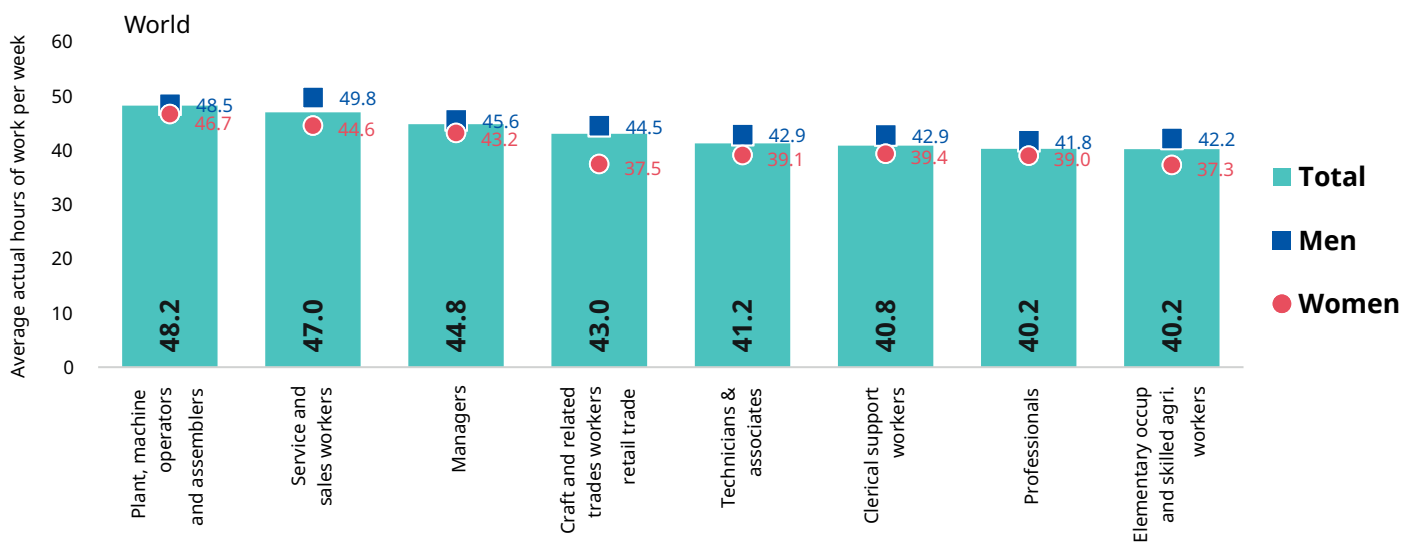
4 This figure and all subsequent figures in this chapter present the pre-pandemic situation regarding hours of work (2019 or latest year available), based on survey data from 160 countries that represents 95 per cent of total global employment. For the classification of countries/territories by income group, see Annex 1; for the classification of countries/territories by region, see Annex 2; for the detailed sources of national data, see Annex 3; and for additional details on the methodology used to calculate the regional and global estimates presented in this chapter, see Annex 4.

► Figure 3b. Average hours of work per week, by sex and economic sector (total employment, 2019)



From a sectoral perspective, figure 3b shows that globally, the sectors with the longest weekly hours of work in 2019 were wholesale and retail trade (49.1 hours), transport and communications (48.2 hours) and manufacturing (47.6 hours). The sectors with the shortest weekly hours of work were agriculture (37.9 hours),⁵ education (39.3 hours) and health services (39.8 hours), although it seems likely that the extreme demands on the health services sector arising from the COVID-19 pandemic would have substantially increased average hours of work in that sector.

► Figure 3c. Average hours of work per week, by sex and major occupational group (total employment, 2019)



5 Measuring actual hours of work in the agriculture sector is notoriously difficult due to the highly seasonal nature of such work. Therefore, the reference week used for making the measurement is critical and it is not possible to have much confidence that the average hours for any particular week is truly representative of the entire year.

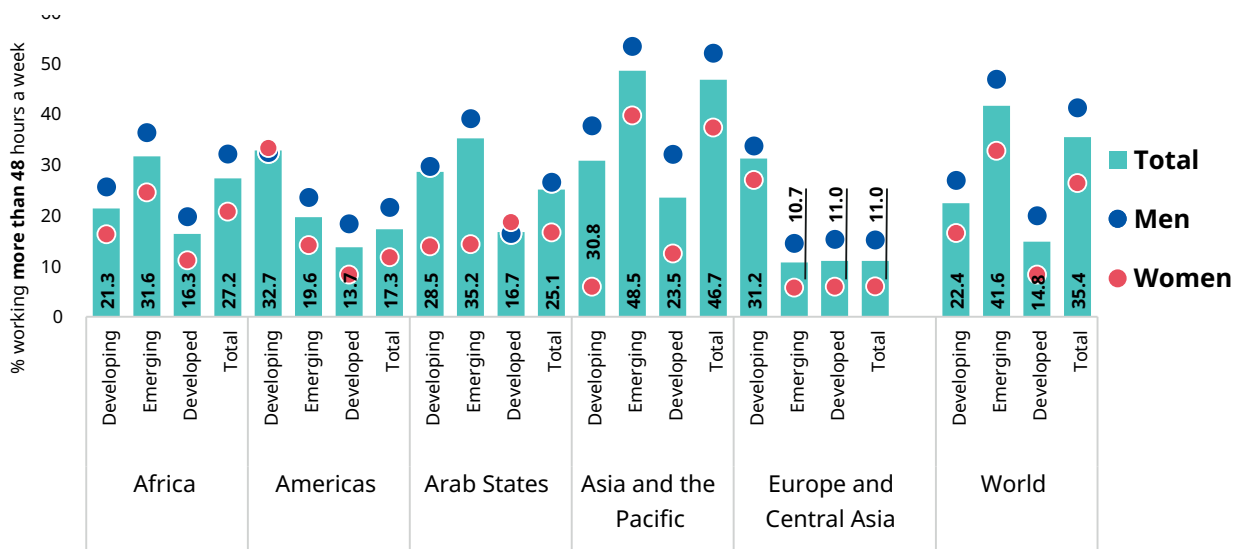
Finally, figure 3c shows that the major occupational group with the longest average hours of work was plant and machine operators and assemblers, who worked 48.2 hours per week on average, closely followed by service and sales workers at 47.0 hours per week. In contrast, both professionals and workers in the elementary occupations, including skilled agricultural workers, worked an average of 40.2 hours per week.

While this brief overview of average hours of work demonstrates that this particular working-time indicator is certainly useful, too many analyses of working time begin and end with this one single measure. That is a serious shortcoming because – as with any measure of central tendency – the estimation of average weekly hours of work fails to reveal whether the distribution of working hours in a region, country, sector, occupation or other category is normally shaped or whether it is skewed; in the latter case, this could mean that workers’ hours of work are more likely to be outside the normal range in the direction of either long hours or short (part-time) hours. That is the primary reason why the remainder of this chapter focuses on the distribution of working hours outside the normal range – that is, long hours and short (part-time) hours. In addition, there are also other sound reasons for this focus, such as the fact that regular long working hours are associated with a variety of negative effects, such as those on occupational safety and health, work–life balance and productivity, as well as the fact that very short hours of work (less than 15/20 hours per week) are associated with time-related underemployment (for an in-depth discussion of the effects of working hours on different outcomes of interest, see Messenger 2018).

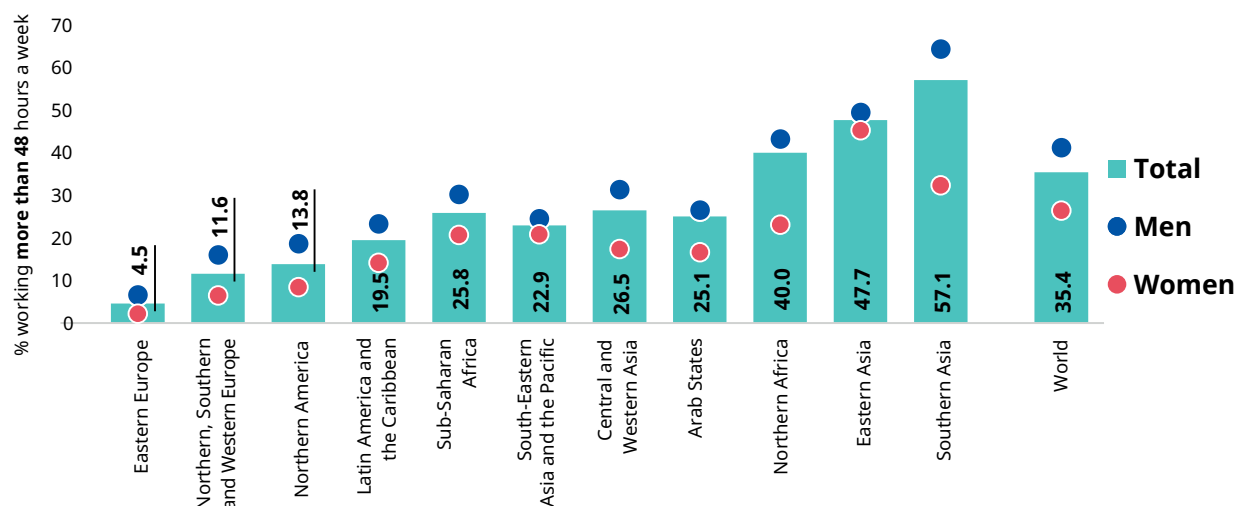
2.3.1 Long hours of work

Long hours of work can be defined as regularly working more than 48 hours per week. This definition is consistent with the relevant international labour standards, Convention No. 1 and the Hours of Work (Commerce and Offices) Convention, 1930 (No. 30), which limit normal working hours to 48 per week. It is also consistent with the relevant literature on the negative effects of long hours of work on occupational safety and health, work–life balance, and productivity and performance (for an in-depth discussion of the effects of hours of work on these outcomes, see Messenger 2018).

► **Figure 4a. Workers working more than 48 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)**



► Figure 4b. Workers working more than 48 hours per week, by detailed geographic region (total employment, 2019, in %)



As shown in figures 4a and 4b, approximately one third of the global workforce (35.4 per cent) worked more than 48 hours per week in 2019 prior to the onset of the COVID-19 pandemic. The categories in figure 4a are based on countries' level of economic development: developed (high-income), emerging (middle-income) or developing (low-income). The proportion of workers working such long hours is substantially higher in developing countries as compared with developed countries and is highest of all in emerging economies. The region with the highest proportion of workers who regularly work more than 48 hours per week is Asia and the Pacific, where nearly half of all workers (46.7 per cent) work long hours. The highest proportions of workers with such long hours of work are found in Southern Asia (57.1 per cent) and Eastern Asia (47.7 per cent). Africa has the second-highest proportion of workers with long hours of work (27.2 per cent), particularly Northern Africa (40.0 per cent), followed by the Arab States at 25.1 per cent. The region with the lowest proportion of workers with long hours of work is clearly Europe and Central Asia (11.0 per cent), particularly in Eastern Europe (4.5 per cent).

In developing and emerging economies, such long hours of work are driven mainly by low hourly wages and/or a desire to maximize earnings (whether these are wages or income from self-employment), which means that workers often need to work long hours just to make ends meet (Lee, McCann and Messenger 2007; ILO 2009). The situation is very different in developed countries, particularly for certain categories of salaried employees such as professional workers and managers, who may be expected to work whatever hours are required to complete their assignments and/or may work long hours to demonstrate their commitment to the organization and thus attempt to advance their careers (Lee, McCann and Messenger 2007; ILO 2009).

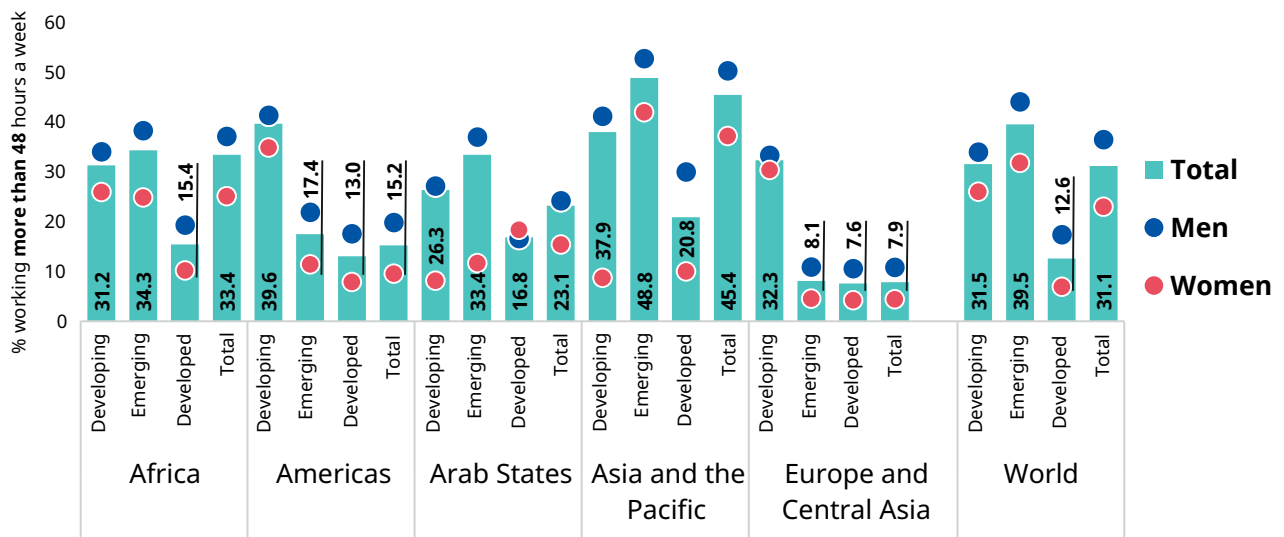
There is also a substantial gender difference in the incidence of long hours of paid work. As shown in figures 4a and 4b, men are substantially more likely than women to work long hours of paid work (41.2 per cent versus 26.4 per cent). This is true in all regions of the world, with the notable exceptions of Eastern Asia and South-Eastern Asia and the Pacific, where there is virtually no gender difference. However, as already noted, it is important to keep in mind that this gender difference in paid work does not reflect the substantially greater amount of time that women devote to unpaid household tasks and care work compared to men. In fact, this higher share of women's unpaid work accounts for much of the difference between women and men in paid hours of work (ILO 2018; Eurofound 2015; Lee, McCann and Messenger 2007).

2.3.2 Long hours of work by employment status

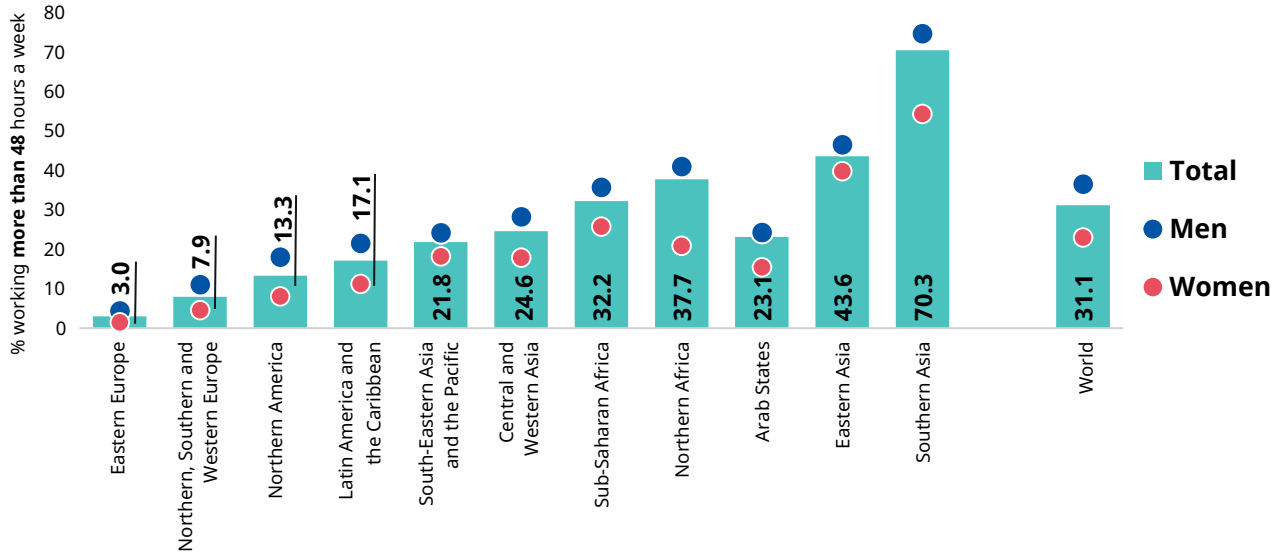
It is particularly interesting to look at long hours of work by employment status, because there is a dramatic difference between the working-time patterns of employees and self-employed (own-account) workers (see figures 5a, 5b, 6a and 6b, respectively). Globally, 31.1 per cent of employees regularly work more than 48 hours per week, but the proportion is much higher for self-employed workers, at 44.4 per cent. This general pattern holds across all the major geographic regions of the world, with the sole exception of Africa, where a higher proportion of employees (33.4 per cent) work long hours than self-employed workers (27.7 per cent). The main reason for this reversal in the classic pattern is the predominance of the informal economy in Africa – as we will see later in this chapter.

The difference in long hours of work between the two groups appears more muted in regions in which long hours of work are prevalent, such as Asia and the Pacific, where 45.4 per cent of employees have long hours of work compared with 52.8 per cent of self-employed workers. The pattern even reverses itself in some cases, most notably in Southern Asia, where a much larger proportion of employees (70.3 per cent) than self-employed workers (54.2 per cent) regularly work long hours. However, the general pattern of self-employed workers being more likely to have long hours of work becomes even more striking in regions where long hours of work are relatively rare. For example in Europe and Central Asia, 27.7 per cent of self-employed workers regularly work long hours versus a mere 7.9 per cent of employees; in other words, self-employed workers in this region are more than three times as likely as employees to have long hours of work.

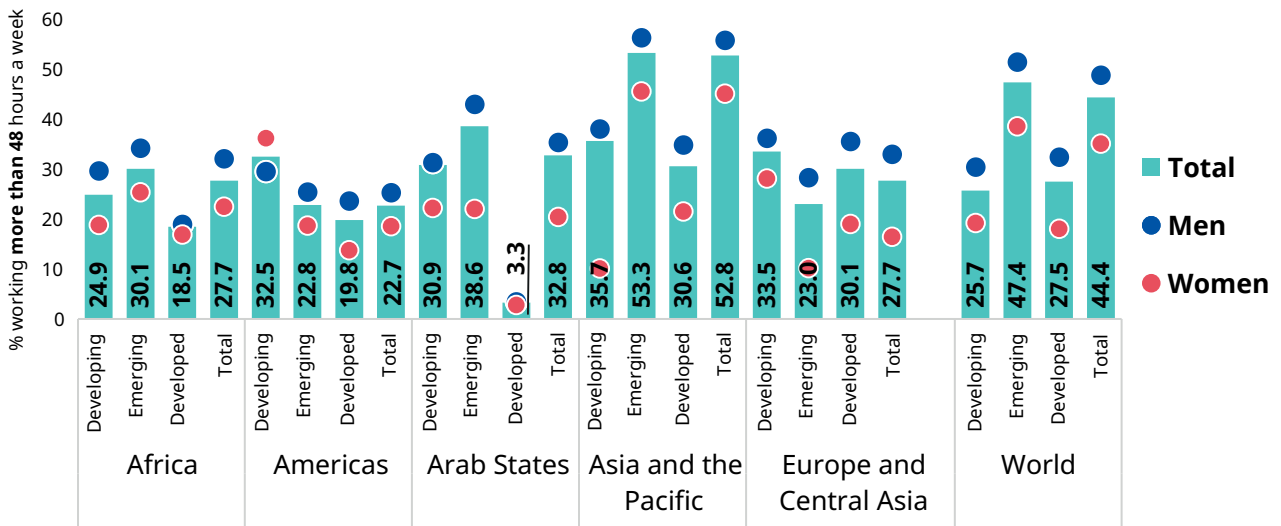
► **Figure 5a. Employees working more than 48 hours per week, by sex, major geographic region and level of development (2019, in %)**



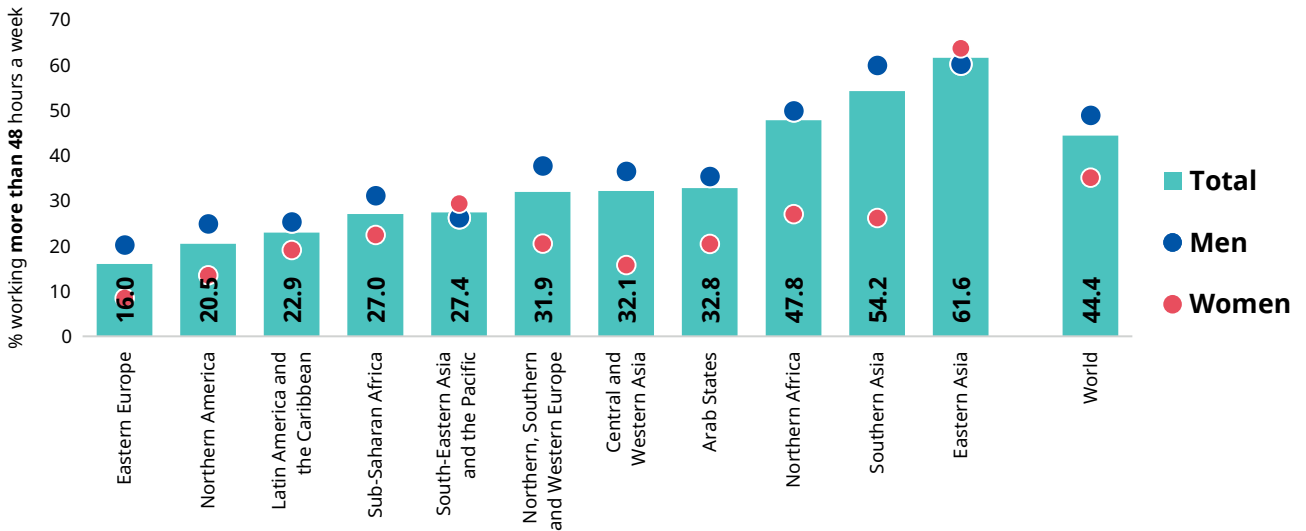
► Figure 5b. Employees working more than 48 hours per week, by sex and detailed geographic region (2019, in %)



► Figure 6a. Self-employed (own-account) workers working more than 48 hours per week, by sex, major geographic region and level of development (2019, in %)



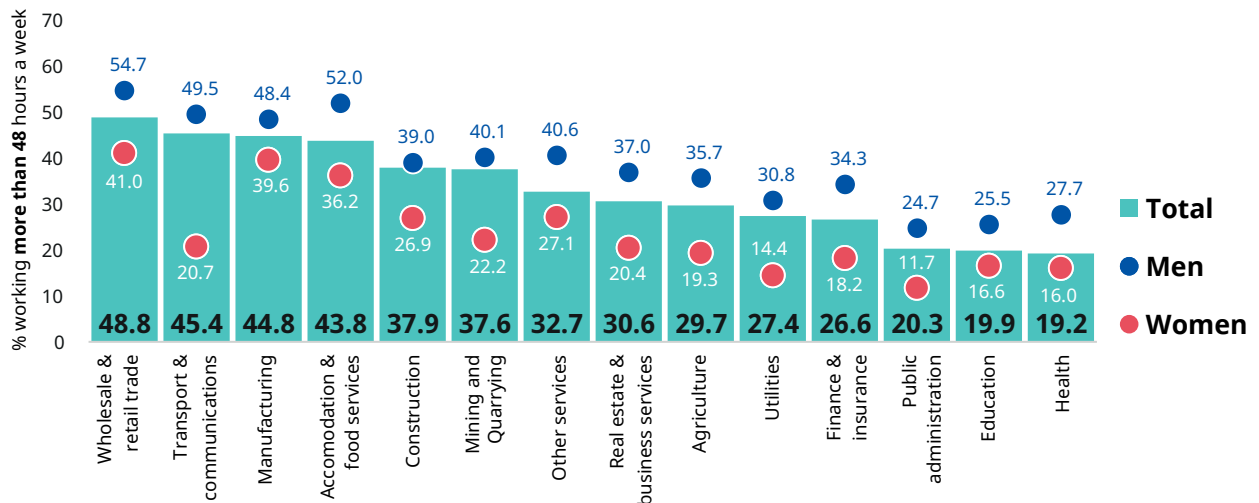
► Figure 6b. Self-employed (own-account) workers working more than 48 hours per week (2019, in %), by sex and detailed geographic region



2.3.3 Long hours of work, by economic sector and occupation

Rounding out our review of the situation of long hours of work prior to the onset of the COVID-19 pandemic (2019), we now turn to patterns by economic sector and occupation.

► Figure 7. Workers working more than 48 hours per week, by economic sector and sex (total employment, 2019, in %)



As shown in figure 7, the economic sector with the highest proportion of workers with long hours of work is wholesale and retail trade; globally, nearly half of all workers in this sector (48.8 per cent) regularly work more than 48 hours per week. The share of workers who work long hours also exceeds 40 per cent of the workforce in transport, storage and communications (45.4 per cent), manufacturing (44.8 per cent) and accommodation and food services (43.8 per cent). At the other end of the spectrum, the sectors in which workers are least likely to regularly work long hours are public administration (20.3 per cent), education (19.9 per cent) and health services (19.2 per cent). The proportion of men with long hours of work is higher than that of women in all these sectors, particularly the transport and communications sectors, in which the proportion of men with long hours of work is more than double that of the proportion of women with long hours of work.

However, if we look at the sectoral incidence of long hours of work by region, we see that the high proportion of workers with long hours of work in wholesale and retail trade is primarily characteristic of one region – Asia and the Pacific – where nearly two thirds of the workers in this sector (64.6 per cent) work long hours, a proportion that is 20 per cent higher than in any other region (Africa has the second-highest, at 44.1 per cent). Indeed, the wholesale and retail trade sector does not have the highest proportion of workers with long hours of work in any other region of the world. For example, in the Americas it is the mining and quarrying sector (29.2 per cent), while in the Arab States it is the other services sector (36.2 per cent), primarily owing to the long hours of work of domestic workers in that region (see box 2).

► Box 2. Hours of work and domestic workers

Defining domestic work

According to the Domestic Workers Convention, 2011 (No. 189) domestic work refers to “work performed in or for a household or households” and a domestic worker is “any person engaged in domestic work within an employment relationship”. If an individual only occasionally or sporadically performs domestic work, they are not a domestic worker. The literature makes a distinction between live-in and live-out domestic workers. Live-in workers reside at their employer’s home, whereas live-out domestic workers report to their employer’s home in the morning and go home in the evening, and they may also work for more than one household (ILO 2011).

Working-time trends in domestic work

(1) Long hours of work

In a number of countries, domestic workers are excluded from the working-time regulations that establish a standard work week, leading to long hours of work. This exclusion is justified on the basis of domestic work being unique because “the needs of household members are not always predictable” (ILO 2011). Almost half (48.9 per cent) of global domestic workers have no legal limit on their normal hours of work and they are clustered in the Arab States and Asia and Pacific (ILO 2021). Live-in domestic workers are most at risk of long hours of work as they reside in their workplace and therefore can be on standby essentially 24 hours/7 days per week.

► Box 2. Hours of work and domestic workers (continued)*(2) Lack of clear working-time boundaries*

The nature of domestic work can make it difficult to distinguish between working time, periods of rest and standby time, particularly for live-in domestic workers (ILO 2021). When clear work schedules are not provided, working time can be very unpredictable. The requirement for some domestic workers to work long hours and constantly be available for work leads to an erosion of rest periods. Therefore, it is important to regulate different periods of domestic work by classifying periods of standby as working time in order to help prevent long hours of work (ILO 2015).

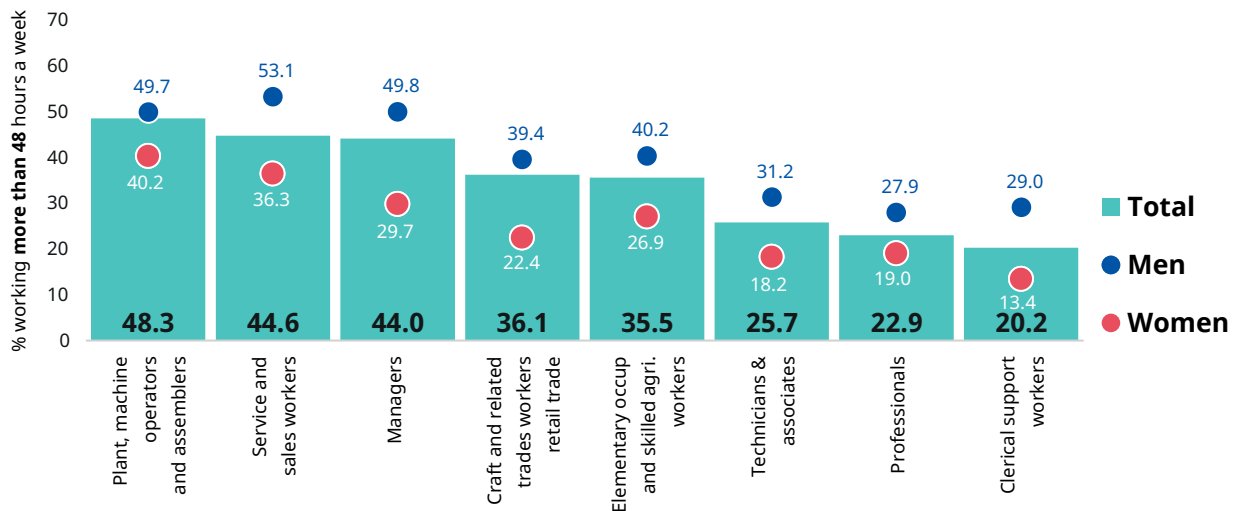
(3) Rest periods and annual leave

Given the blurred boundaries of working time in domestic work, the right to weekly rest is key to ensuring that domestic workers are afforded an uninterrupted weekly break from work. An ILO study found that 77 per cent of 108 countries investigated afforded domestic workers the legal right to weekly rest, ranging from 24 to 48 hours of rest (2021). However, 37.3 per cent of domestic workers are clustered in countries (such as Japan, the Republic of Korea and China) that do not guarantee them the right to weekly rest (ILO 2021). A similar trend may be observed for paid annual leave, with 77.8 per cent of countries surveyed by the ILO affording domestic workers between two and four weeks per year; yet 36.4 per cent of domestic workers in a small group of countries in the Arab States and Asia and the Pacific, and to a lesser extent Africa, do not have any entitlement to annual leave (ILO 2021).

Impact on health, safety and work–life balance

The long hours of working and lack of rest associated with domestic work in a minority of countries negatively impacts both their health and work–life balance. For domestic workers with family responsibilities, work–life conflict is likely if the working-time regulation of domestic workers does not exist (ILO 2011). While limited studies exist on the work–life balance effects of domestic work, more general analyses of long hours of work and lack of rest breaks highlight the negative health consequences. Specifically, relevant studies have shown that fatigue and lack of sleep lead to an increased risk of cardiovascular disease, diabetes, obesity, depression and anxiety, and also results in workers being more likely to be the victims of accidents at work (ILO 2013). Therefore, unregulated domestic work has negative impacts on both health and safety.

► **Figure 8. Workers working more than 48 hours per week, by major occupational group and sex (total employment, 2019, in %)**



Finally, figure 8 provides global figures on long hours of work by major occupational group. Plant and machine operators and assemblers are the occupational group most likely to work long hours; nearly half of all workers in this group (48.3 per cent) regularly work long hours. Service and sales workers and managers are also quite likely to work long hours (44.6 per cent and 44.0 per cent, respectively). By contrast, clerical support workers are the least likely to work long hours (20.2 per cent), closely followed by all professionals (22.9 per cent). The proportion of men with long hours of work is higher than that of women in all these occupational groups.

In addition, the situation of workers in the elementary occupations, including skilled agricultural workers, is interesting because it provides an illustration of how average hours may be deceiving. It will be recalled that the average hours of work for this occupational group are one of the shortest, at 40.2 hours per week. However, despite the normal appearance of average hours in this occupational group, the proportion of workers with long hours of work falls in the middle of the pack, at 35.5 per cent. As a result, the two different working-time indicators paint a very different picture of the situation of hours of work in this occupational category.

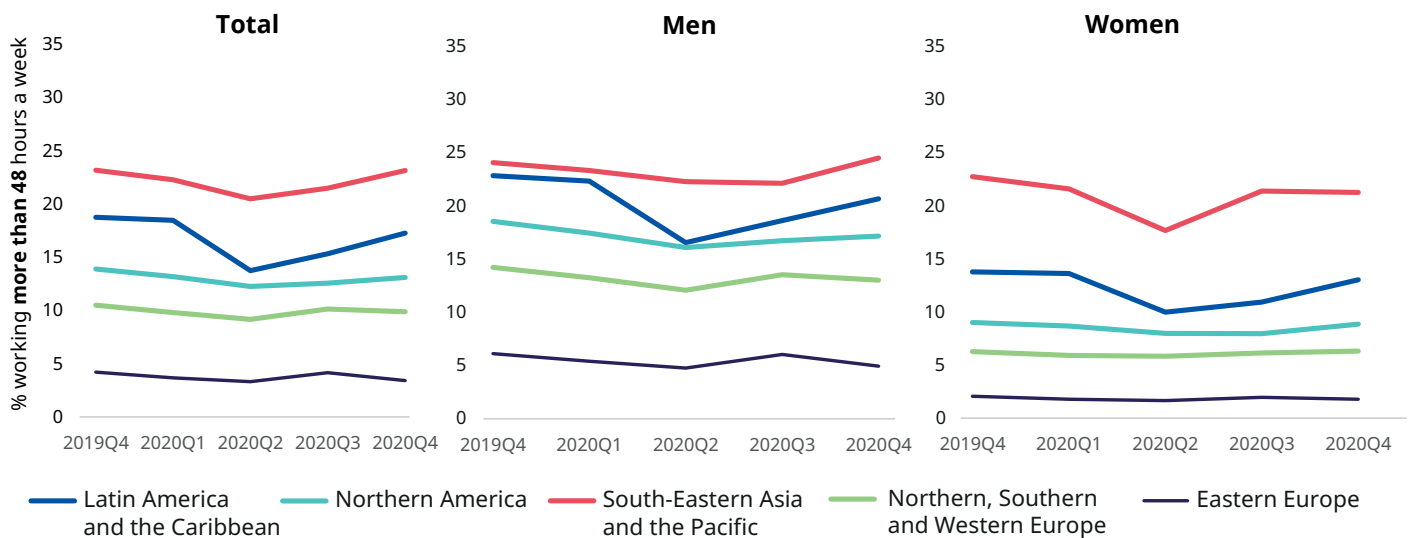
2.3.4 Evolution of long hours of work during the COVID-19 pandemic

Given the dramatic fall in global demand for goods and services during the first wave of the COVID-19 pandemic, which resulted from government policies designed to contain the pandemic – particularly the so-called “lockdowns” that shuttered businesses and confined many individuals to their homes to mitigate the spread of the virus – our starting assumption on long hours of work is that they should have decreased in the first year of the pandemic. Although the data available for this period is preliminary and available for only a small number of countries, we do see the expected pattern in figure 9: the proportion of workers who regularly work more than 48 hours per week decreased substantially between the fourth quarter of 2019 and the second quarter of 2020. This general pattern holds in all regions of the world for

which data were available at the time of writing. It is particularly notable in those regions/subregions of the world where the proportion of long-hours workers was the highest prior to the pandemic: South-Eastern Asia and the Pacific (a decline from 22.2 per cent to 17.5 per cent of the population still in employment from the fourth quarter of 2019 to the second quarter 2020) and Latin America and the Caribbean (a decline from 16.2 per cent to 12.7 per cent of the employed population in the same period).

However, the decrease in long hours of work was not as steep as might be expected given the situation, perhaps in part because some products were in high demand. Also, in many regions of the world the proportion of workers with long hours of work had already begun to rise by the third quarter of 2020, although it still remained slightly below its 2019 level at the end of 2020. The Republic of Korea is a notable outlier: it is located in Eastern Asia, which of course was the point of origin of the pandemic. The proportion of workers with long hours of work in that country had already begun to decline in the first quarter of 2020 and continued to decline throughout all of 2020. The only thing we can say with some degree of certainty is that there was indeed a decline in long hours of work in the first year of the pandemic in the countries with available data, albeit a very modest one.

► **Figure 9. Trends in workers working more than 48 hours per week in the first year of the COVID-19 pandemic (total employment, fourth quarter 2019 to fourth quarter 2020, in %), by sex and detailed geographic region⁶**



⁶ The graphs shown in figure 9 are based on ILO calculations using data from 60 countries or areas (excluding India and China), representing close to one third of global employment. Estimates for Africa (2 countries), the Arab States (1 country), Eastern Asia (2 countries), Southern Asia (1 country) and Central and Western Asia (2 countries) are not displayed due to the limited number of countries or areas with available data for the period 2019–2020. Estimates are weighted averages based on survey data from 63 countries or areas. However, estimates for Africa (2 countries), Arab States (1 country), Eastern Asia (2 countries), Southern Asia (1 country) and Central and Western Asia (2 countries) are not displayed due to the limited number of countries available and the resulting lack of representativeness of the results.

From a gender perspective, the proportion of men who regularly work more than 48 hours per week in the labour force remained much higher than the comparable proportion of women working such hours – roughly double the proportion of women in all the quarters analysed. The proportion of men with long hours of work did decline slightly in the first and especially the second quarters of 2020, but it began to rise in the third quarter of 2020; however, long hours of work among men remained slightly below its pre-pandemic level even in the fourth quarter of 2020. The proportion of women who work more than 48 hours, however, dipped only very slightly in the second quarter of 2020 – albeit from a lower level – before essentially regaining its pre-pandemic level by the fourth quarter of 2020.

2.3.5 Short hours of work, very short hours of work and time-related underemployment

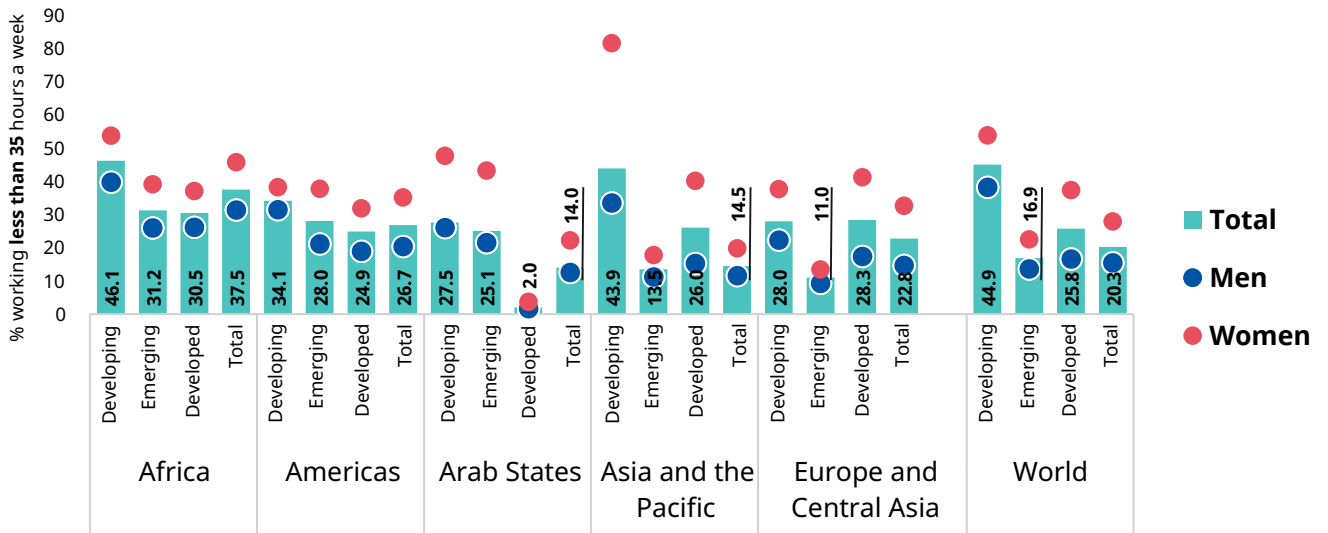
Short hours of work – often called “part-time work” – means regularly working less than the full-time hours in a particular country. Specifically, the Part-Time Work Convention, 1994 (No. 175) defines a part-time worker as an “employed person whose normal hours of work are less than those of comparable full-time workers”. However, most statistical definitions of part-time work focus on the actual number of hours worked per week – with thresholds of less than 35 hours per week or sometimes less than 30 hours per week (such as the definition of the Organisation for Economic Cooperation and Development (OECD)), which is used as the basis for determining which workers are working “part-time”. In this report, we will use the standard ILO statistical definition of part-time work to define short hours of work – less than 35 hours of work per week.

Based on this definition, figures 10a and 10b indicate that approximately one fifth of global employment (20.3 per cent) consists of short (or part-time) hours of work of less than 35 hours per week.⁷ The proportion of workers with such short or part-time hours of work is substantially higher in developed countries compared with countries that are still developing their economies (Messenger 2018). However, when we break down this broad group of developing countries into emerging economies (middle-income countries) and less developed economies (developing countries), it becomes apparent that while short hours of work are indeed more prevalent in developed countries than in emerging economies, the proportion of workers with short hours of work is actually the highest in the least developed countries. This phenomenon is likely to be the result of time-related unemployment (working fewer hours than one would prefer to work), which is an issue that we will investigate below, as well as the sectoral composition of employment and the prevalence of agriculture, in which sector the hours of work are less likely to be fully captured, as mentioned earlier.

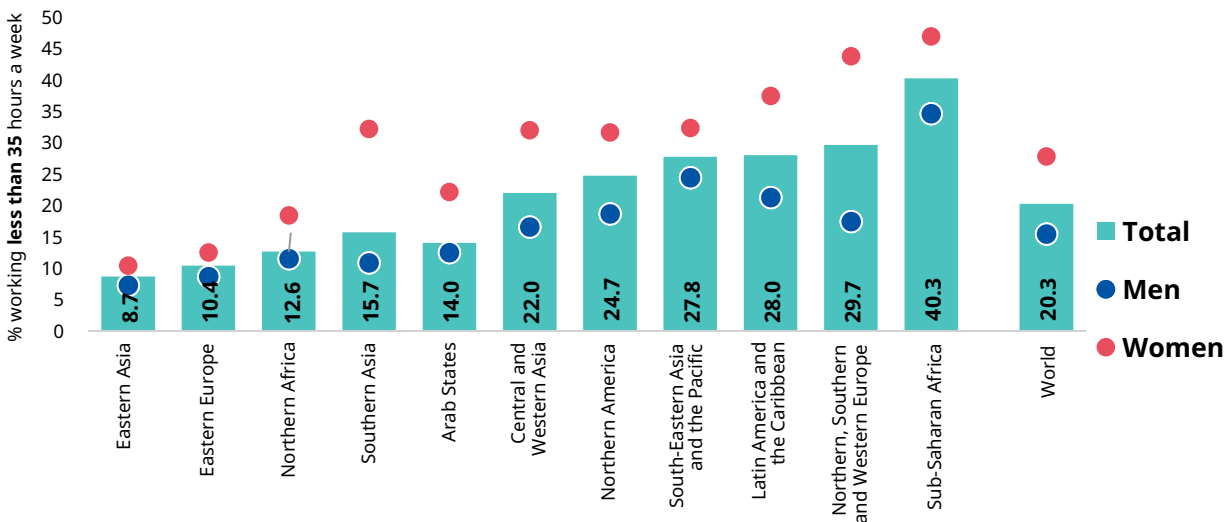
In fact, the proportion of workers with short hours of work is highest in a developing region, Africa (37.5 per cent), particularly sub-Saharan Africa (40.3 per cent; see figure 10b). However, the proportion of workers with short or part-time hours of work is also substantial in the Americas (26.7 per cent) and Europe and Central Asia (22.8 per cent), particularly the highly developed subregion of Northern, Southern and Western Europe (29.7 per cent). The relatively high prevalence of short hours of work in European countries is perhaps the classic example of the expansion of part-time work in developed countries in recent decades. Such short hours of work or part-time working have been gradually increasing in most developed countries, in which part-time work is widely seen as a mechanism for promoting work–family reconciliation and work–life balance in general (Fagan et al. 2014).

⁷ Part-time hours of work should be distinguished from the contractual arrangements associated with part-time employment, which are often inferior to the contractual arrangements for comparable workers in full-time employment (ILO 2011). Part-time work as a type of working-time arrangement is reviewed in Chapter 3.

► Figure 10a. Workers working less than 35 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)



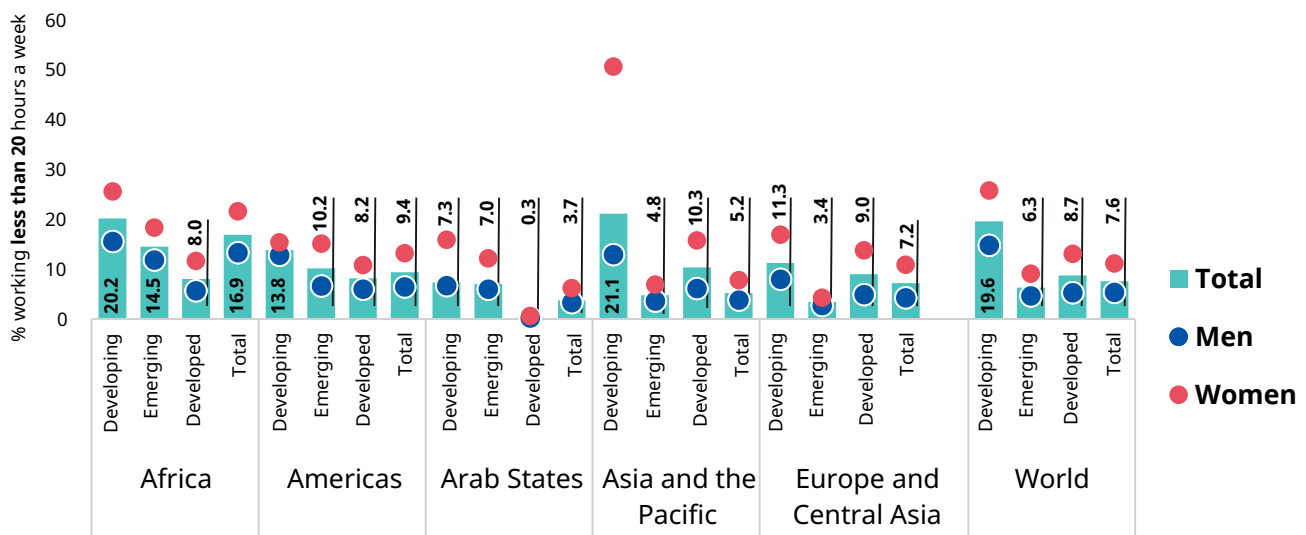
► Figure 10b. Workers working less than 35 hours per week, by sex and detailed geographic region (total employment, in %)



There is also a substantial gender difference in the incidence or short (part-time) hours of work, but it is the reverse of the difference for long hours of work: women are nearly twice as likely (27.8 per cent) as men (15.4 per cent) to have short hours of work across the world. This gender difference holds in nearly all regions of the world, except Eastern Europe and Eastern Asia, in both of which subregions the proportion of workers with short work hours is quite low for both women and men. This substantial gender difference in the incidence of short hours of work is due primarily to the fact that women frequently bear the primary responsibility for performing unpaid household tasks and unpaid care work; in particular, the presence of children and their ages are key determinants of women's paid hours of work (for an in-depth discussion of this issue, see Lee, McCann and Messenger 2007, Ch. 4). This unequal share of unpaid household and care work has been quantified, including in a recent ILO study, which found that "[g]lobally, women dedicate, on average, 3.2 times more hours than men to unpaid care work: 4 hours and 25 minutes (265 minutes) per day against 1 hour and 23 minutes for men (83 minutes)" (ILO 2018a, p. 53).

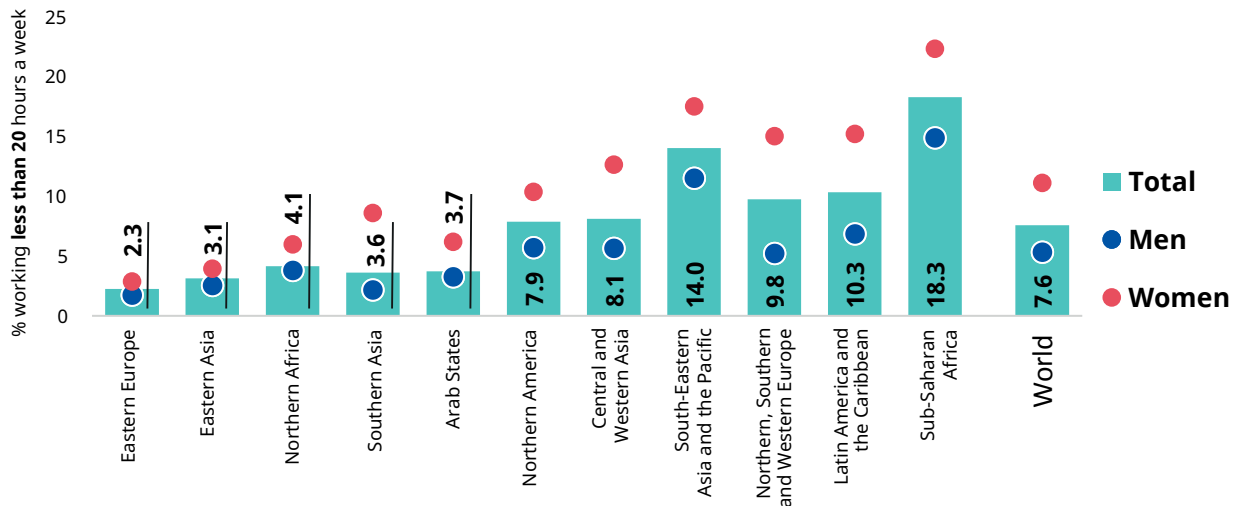
Turning to *very short hours of work* – defined here as less than 20 hours per week⁸ – figures 11a and 11b show that the proportion of workers with very short hours of work remains quite small overall: a mere 7.6 per cent of total global employment. The proportion is slightly higher in some regions, particularly sub-Saharan Africa and South-Eastern Asia and the Pacific. However, the most striking aspect of such part-time work is its gender dimension: the proportion of women with very short hours of work is substantially higher than the proportion of men in every single region of the world, with women doubling or even tripling the rate of men in some subregions, most notably Northern, Southern and Western Europe (15.0 per cent for women versus only 5.2 per cent for men). As with short (part-time) hours in general, this situation is due primarily to women's disproportionate share of unpaid household tasks and unpaid care work; these time demands limit the extent of their participation in paid work.

► Figure 11a. Workers working less than 20 hours per week, by sex, major geographic region and level of development (total employment, 2019, in %)



8 Alternative hours thresholds may also be used (for example, less than 15 hours per week).

► Figure 11b. Workers working less than 20 hours per week, by sex and detailed geographic region (total employment, in %)

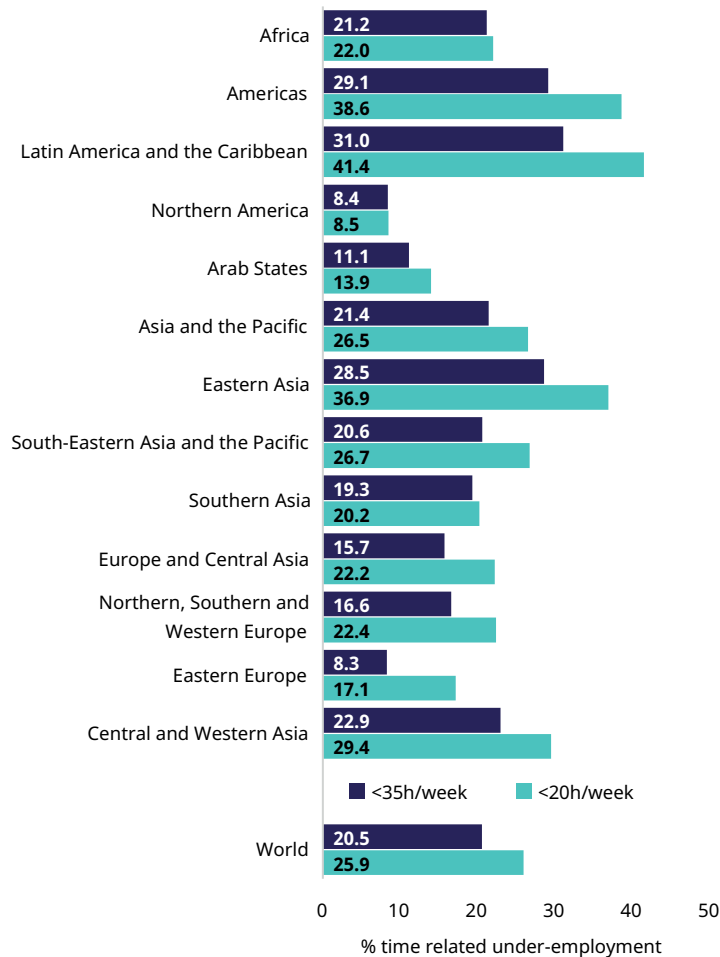


Very short hours of work (less than 20 hours per week) are even more likely to be associated with time-related underemployment than short (part-time) hours of work, as we will see in section 2.3.6 below. They also tend to be linked with unpredictable work schedules (for further details on working-time arrangements and their effects on work–life balance, see Ch. 3).

Time-related underemployment

The main reason for concern with regard to both short and very short hours of work is that such situations are often an involuntary state for workers – that is, they tend to be associated with time-related underemployment. Figure 12a demonstrates this situation graphically for both short hours of work (less than 35 hours per week) and very short hours of work (less than 20 hours per week). It shows that globally, one fifth or 20.5 per cent of all workers with short hours of work experience time-related underemployment, while one fourth or 25.9 per cent of all workers with very short hours of work are in the same situation. Time-related underemployment is highest in the Americas (29.1 per cent for workers with short hours of work and 38.6 per cent for workers with very short hours of work), particularly Latin America and the Caribbean (31.0 and 41.4 per cent, respectively). The proportion of workers in time-related underemployment is also substantially higher than the global average in Eastern Asia (28.5 per cent for workers with short hours of work and 36.9 per cent for workers with very short hours of work) and Central and Western Asia (22.9 per cent and 29.4 per cent, respectively).

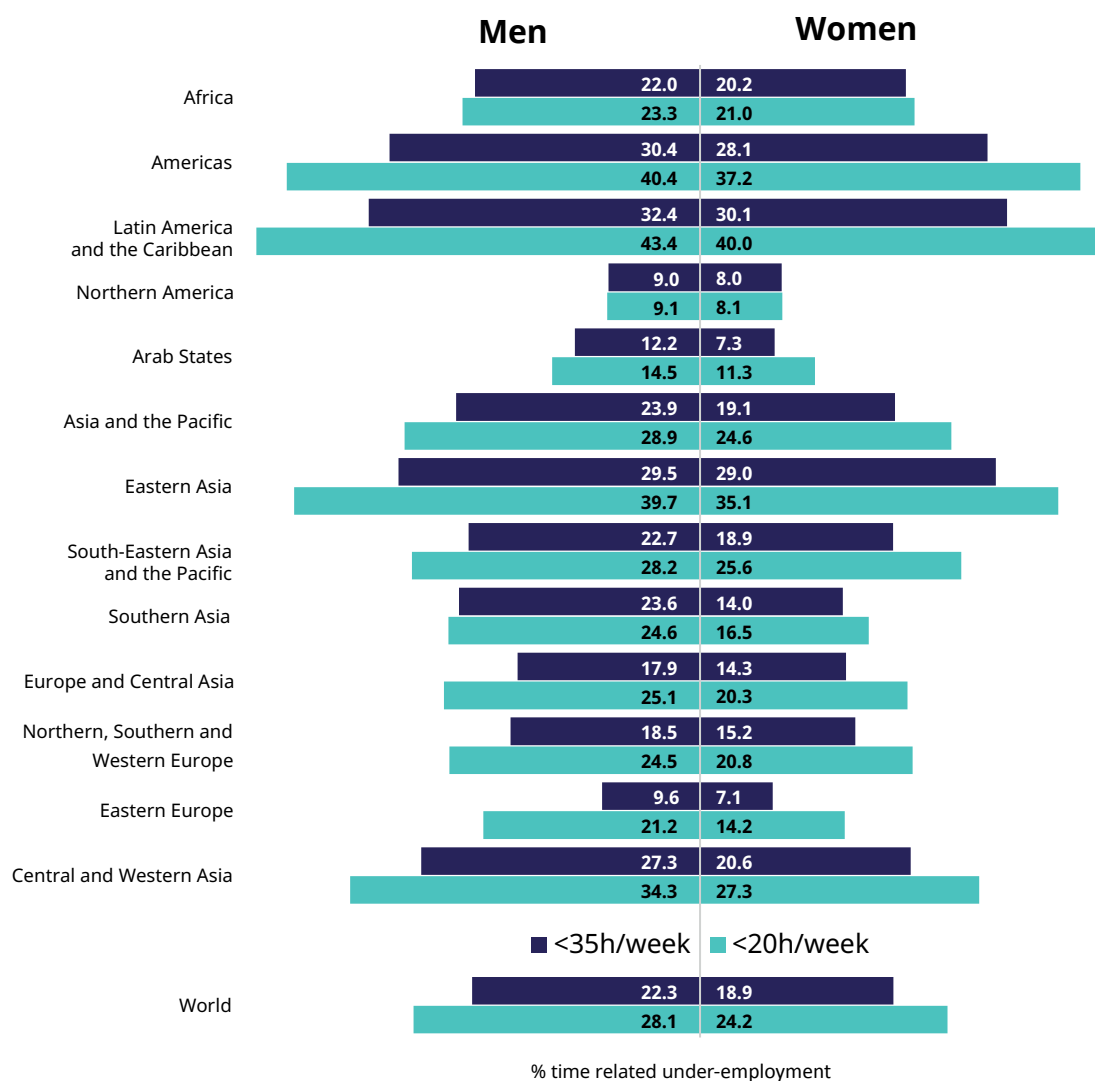
► Figure 12a. Time-related underemployment among people working less than 35 or less than 20 hours per week, by major and detailed geographic region (total employment, 2019, in %)



Note: The figure above is based on 111 countries representing 55 per cent of global employment.

Overall, figure 12a suggests that mismatches between workers' actual hours of work and their preferred hours of work exist for a substantial portion of the global workforce; in this case, workers would prefer to work longer hours to increase their earnings but are unable to do so. As shown in figures 12b and 12c, men working less than full-time are somewhat more likely to experience time-related unemployment than women working less than full-time. This situation holds true for workers with both short and very short hours of work. This situation is most likely due to the social expectation in most countries that men will be the primary "breadwinner" (earner) in the household, and therefore they are more likely to prefer full-time employment than women (for a comprehensive review of working-time matches and mismatches around the world, as well as their relationship with employers' needs, see Ch. 4).

► Figure 12b. Time-related underemployment among women and men working less than 35 or less than 20 hours per week, by major and detailed geographic region (total employment, 2019, in %)



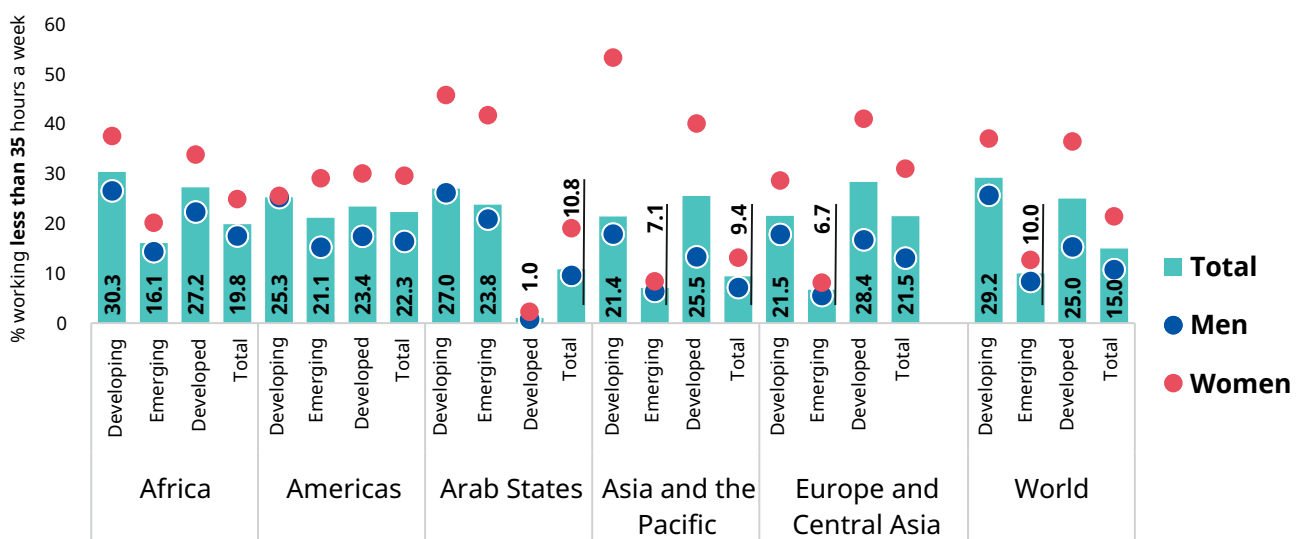
Note: ILO calculations, based on 111 countries representing 55 per cent of global employment.

2.3.6 Short and very short hours of work, by employment status

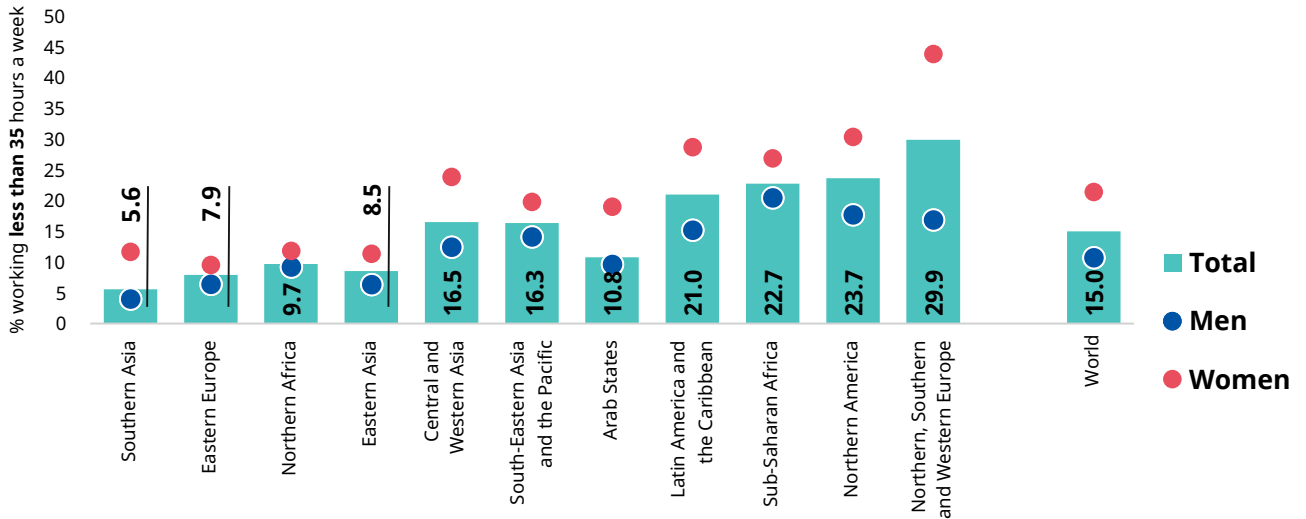
Earlier in this chapter, we saw that self-employed workers (own-account workers) are substantially more likely to work long hours than employees. Self-employed workers are also substantially more likely to work short (part-time) hours than employees: 26.9 per cent of self-employed workers regularly work less than 35 hours per week, compared with only 15.0 per cent of employees (see figures 13a, 13b, 14a and 14b). This general pattern holds across all the major geographic regions of the world, except for Northern, Southern and Western Europe, where the share of employees with short hours of work (29.9 per cent) is slightly higher than the share of self-employed workers with short hours of work (29.1 per cent). As noted earlier, the relatively high prevalence of short hours of work in advanced European economies is perhaps the classic example of the expansion of part-time work in developed countries in recent decades. However, it is interesting to note that this pattern does not extend to Eastern Europe, where self-employed workers are four times more likely to work short (part-time) hours than employees (33.5 per cent versus 7.9 per cent), mainly because of a strong preference for full-time work established during the communist era (Lee, McCann and Messenger 2007).

This substantial difference in hours of work by employment status is even more stark if we look at very short hours of work, that is at workers with less than 20 hours of work per week. The proportion of self-employed workers with very short hours is more than double the comparable figure for employees (11.1 per cent versus a mere 4.8 per cent; see figures 15a, 15b, 16a and 16b below). This pattern holds in all regions of the world without exception. Although at first glance this might seem to be surprising, it is well known that a substantial portion of own-account workers enter self-employment because they are unable to secure a wage and salary job. While self-employment may be a desirable choice, for those workers who enter self-employment due to their inability to secure dependent employment it acts as a kind of “employment of last resort” and is often informal in nature (see section 2.4 below on hours of work in the informal economy).

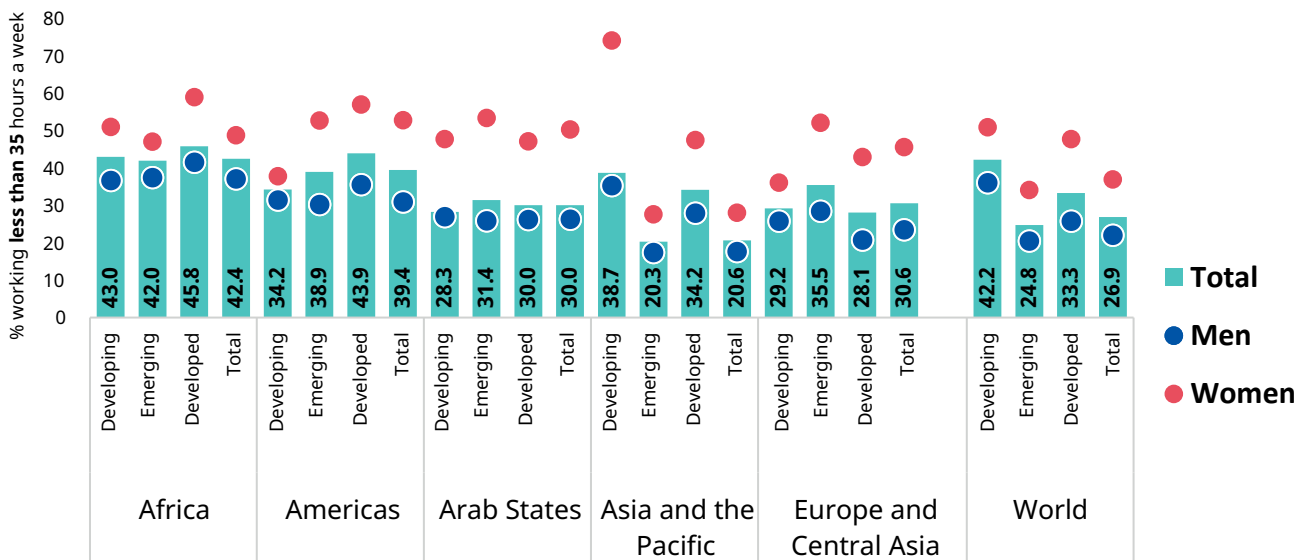
► **Figure 13a. Employees working less than 35 hours per week by sex, major geographic region and level of development (2019, in %)**



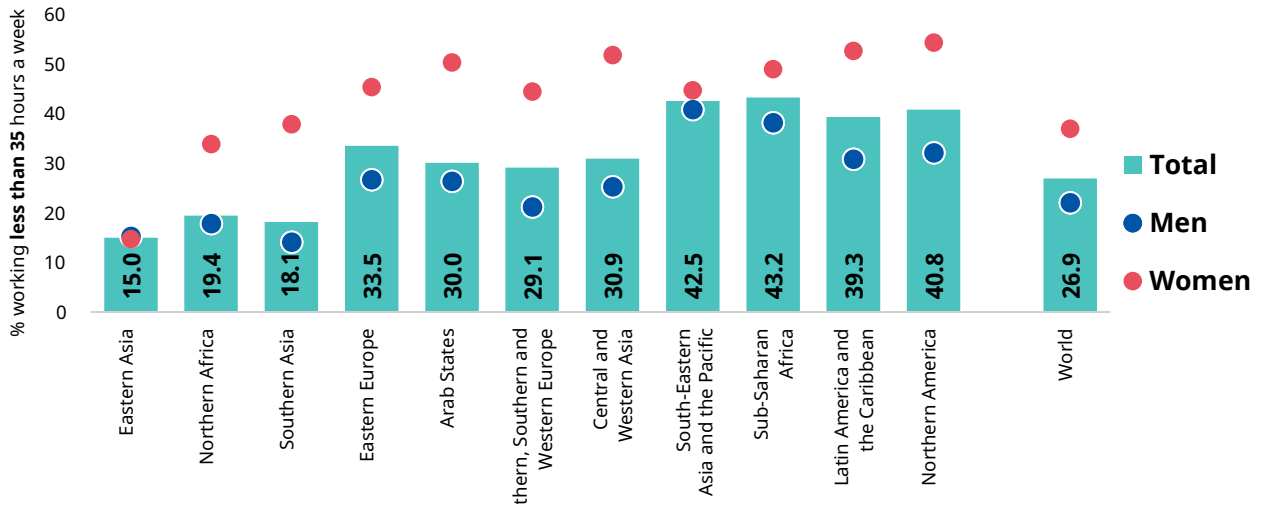
► Figure 13b. Employees working less than 35 hours per week, by sex and detailed geographic region (2019, in %)



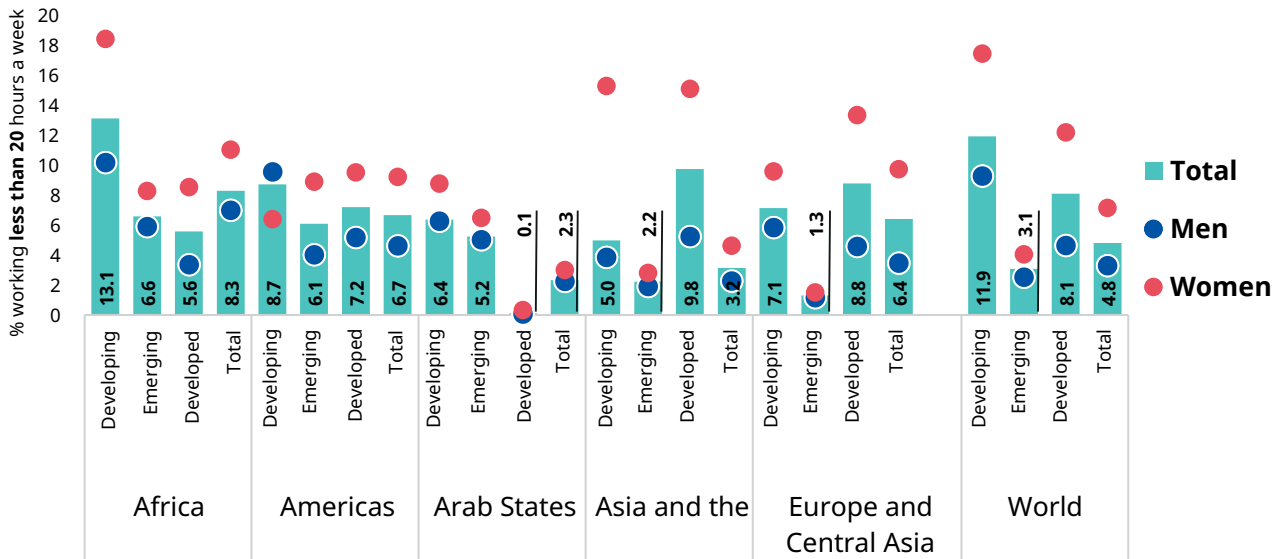
► Figure 14a. Self-employed (own-account) workers working less than 35 hours per week, by sex, major geographic region and level of development (2019, in %)



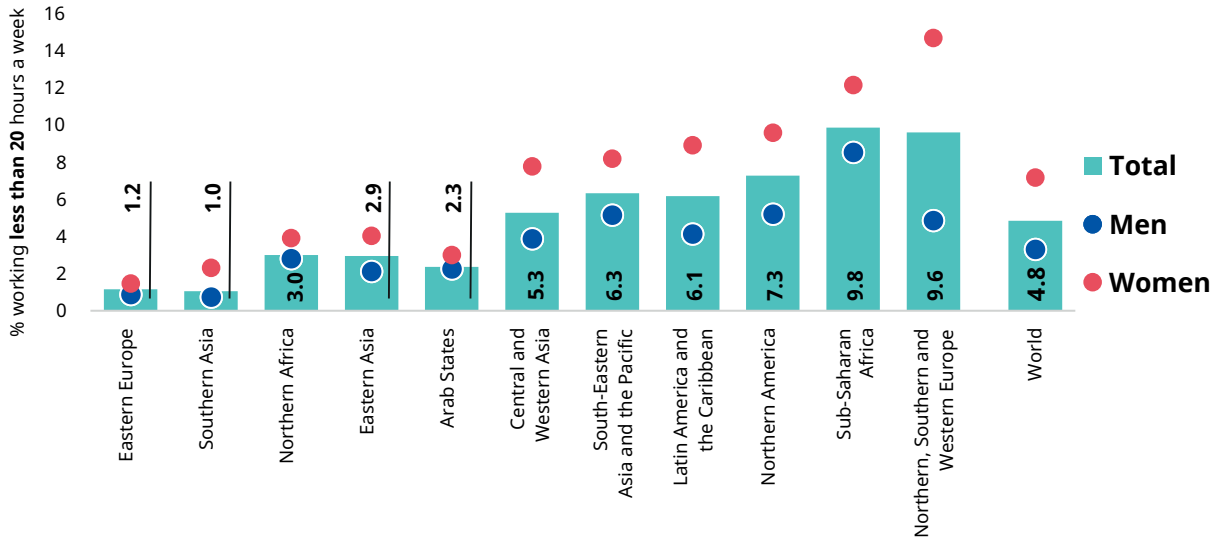
► Figure 14b. Self-employed (own-account) workers working less than 35 hours per week, by sex and detailed geographic region (2019, in %)



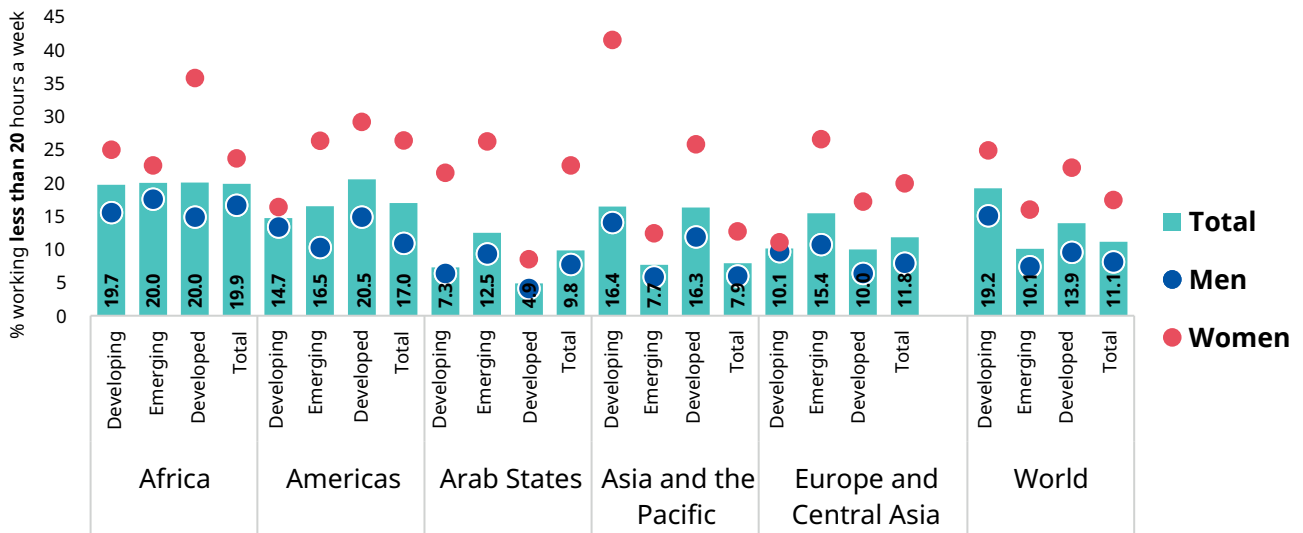
► Figure 15a. Employees working less than 20 hours per week, by sex, major geographic region, and level of development (2019, in %)



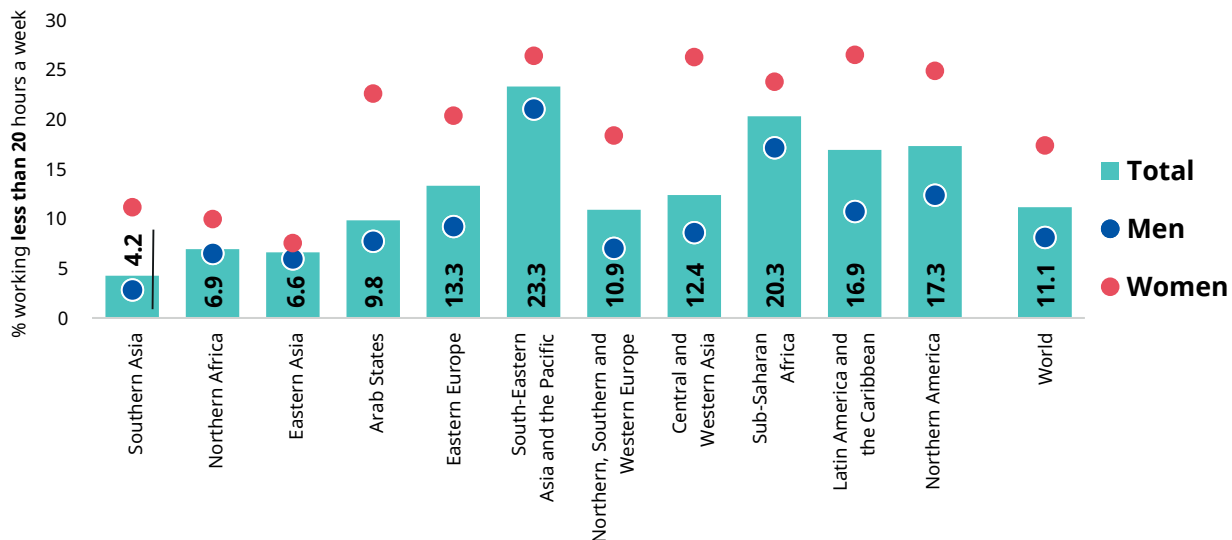
► Figure 15b. Employees working less than 20 hours per week, by sex and detailed geographic region (2019, in %)



► Figure 16a. Self-employed (own-account) workers working less than 20 hours per week, by sex, major geographic region, and level of development (2019, in %)



► Figure 16b. Self-employed (own-account) workers working less than 20 hours per week, by sex, major geographic region, and level of development (2019, in %)



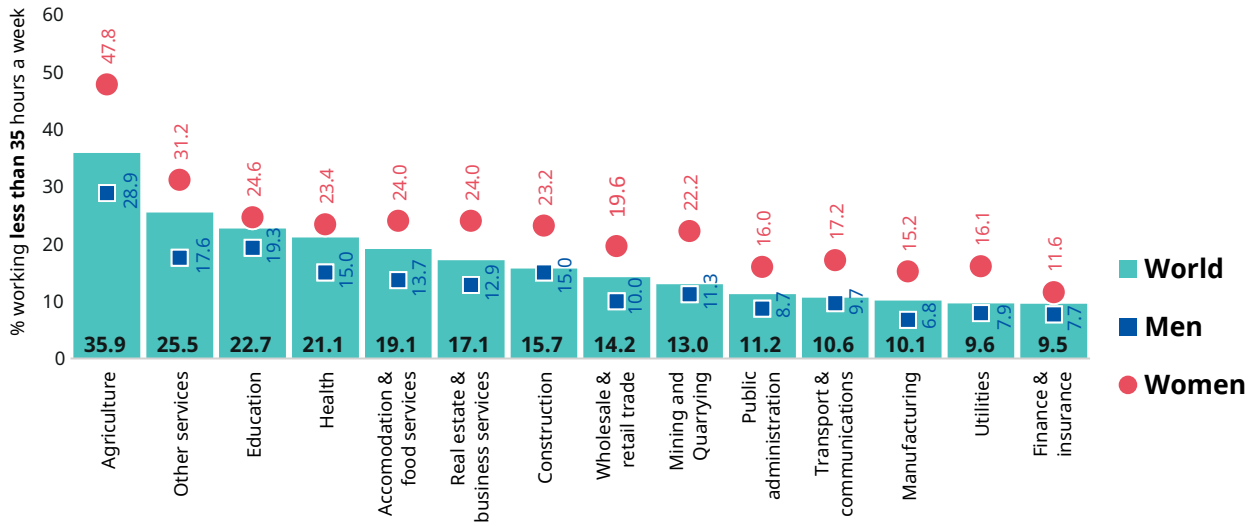
2.3.7 Short and very short hours of work, by economic sector and occupation

To complete our review of the situation of workers with short and very short hours of work prior to the onset of the COVID-19 pandemic (2019 or latest available year), we now consider patterns of short and very short hours of work by economic sector and occupation.

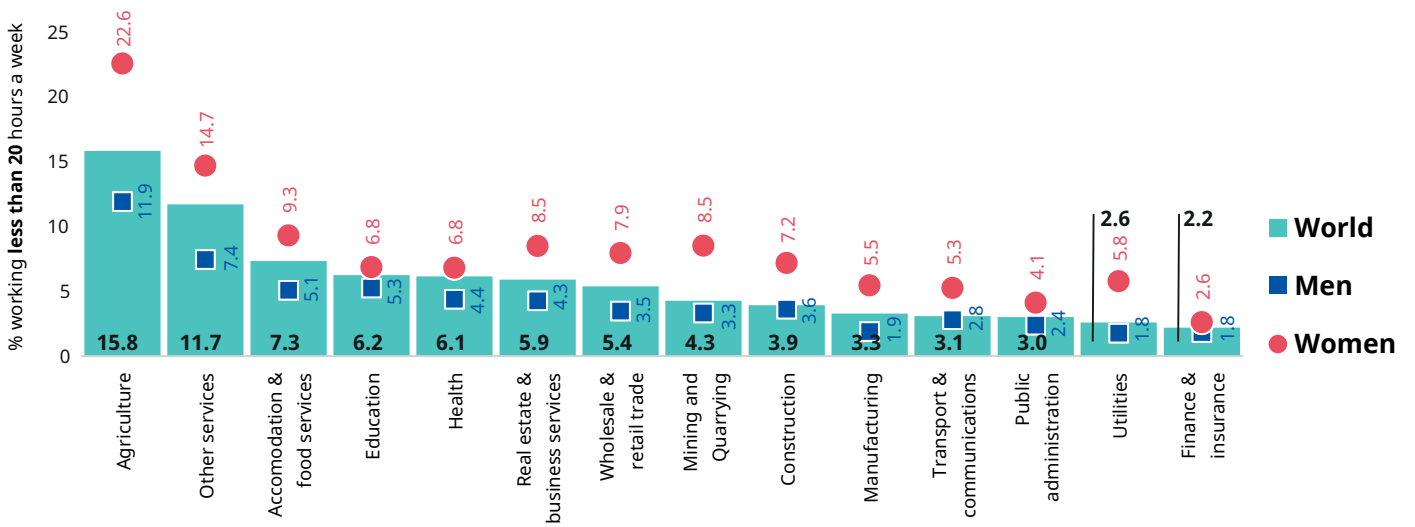
From a sectoral perspective, figure 17 shows that agriculture is the sector with the largest proportion by far of workers with less than 35 hours of work per week: 35.9 per cent of all workers and close to half of all women in this sector work short hours. The catchall sectoral category of other services, which includes a variety of personal services that are not classified elsewhere, has the second-highest proportion, at 25.5 per cent of all workers. A similar pattern holds for very short hours of work (see figure 18).

From an occupational perspective, the broad category of elementary occupations and skilled agricultural workers contains the highest proportion of workers with both short and very short hours, at 27.8 and 11.5 per cent, respectively (see figures 19 and 20). These proportions are twice as high for women compared to men. Professionals, service and sales workers, and craft and related trades workers (including the retail trade) also have relatively high proportions of workers with both short and very short hours of work.

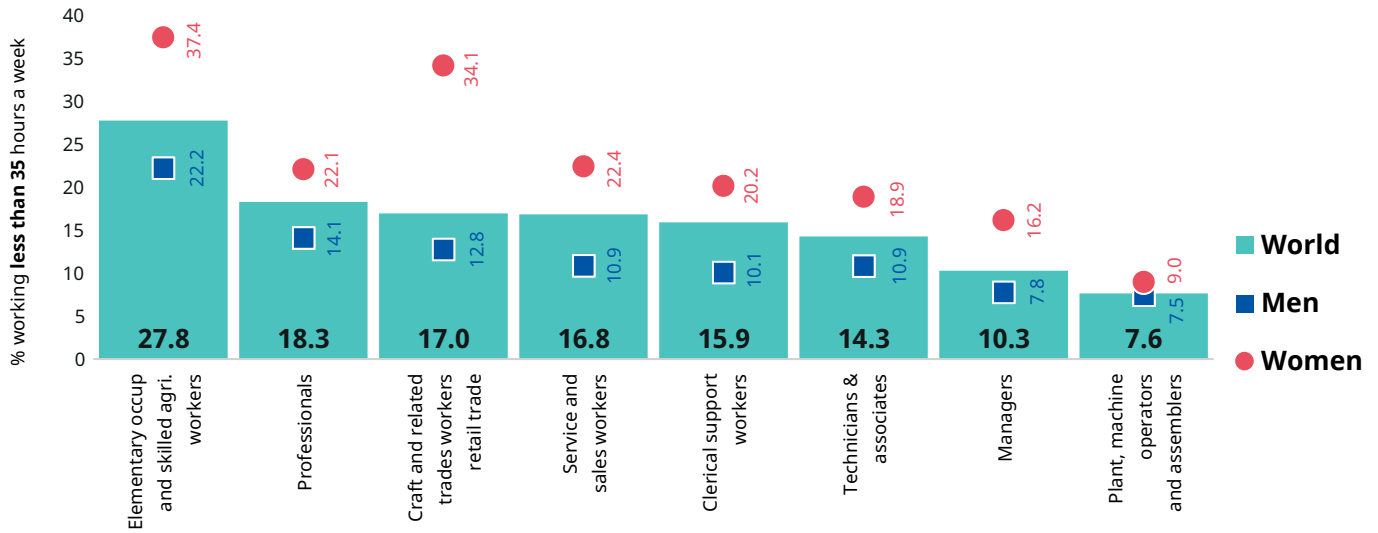
► Figure 17. Workers working less than 35 hours per week, by economic sector and sex (total employment, 2019, in %)



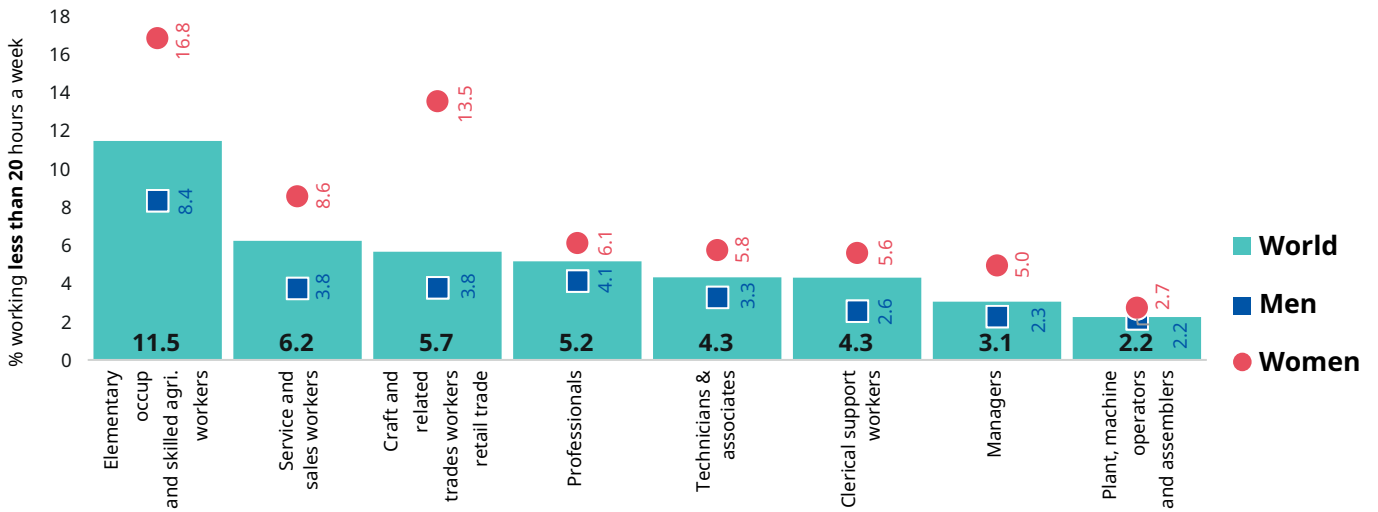
► Figure 18. Workers working less than 20 hours per week, by economic sector and sex (total employment, 2019, in %)



► Figure 19. Workers working less than 35 hours per week, by major occupational group and sex (total employment, 2019, in %)



► Figure 20. Workers working less than 20 hours per week, by major occupational group and sex (total employment, 2019, in %)



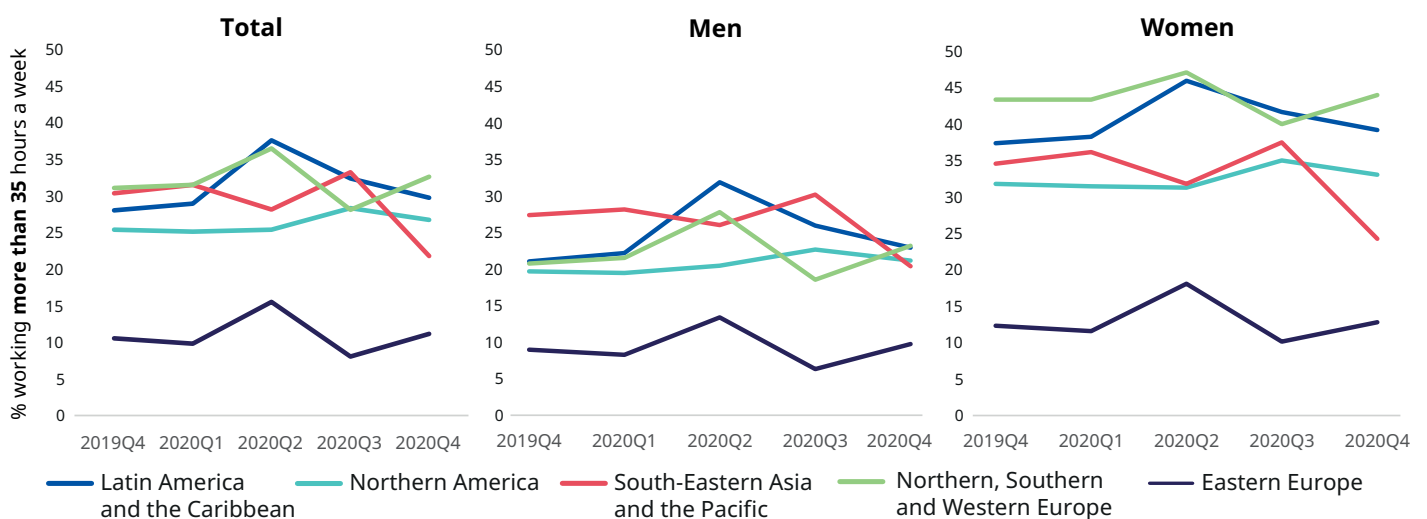
2.3.8 Evolution of short (part-time) hours of work during the COVID-19 pandemic

This section will analyse the evolution of short (part-time) hours of work during the COVID-19 pandemic – its dynamics; the change in the composition of the part-time workforce; and the effects on employment of reducing full-time hours of work. The first question to be answered is: how did short (part-time) hours of work evolve during the COVID-19 pandemic?

Given the dramatic decline in global demand for goods and services during the first wave of the COVID-19 pandemic resulting from governments' policies to attempt to contain the pandemic – particularly so-called “lockdowns” that shuttered businesses and confined many individuals to their homes in order to mitigate the spread of the virus – our starting assumption with regard to short hours of work is that they should probably have increased during the first year of the pandemic. An increase in short hours of work would occur if companies reduced the number of hours of work of full-time workers in response to the decrease in demand for their goods and services early in the pandemic, rather than simply laying off workers. Such reductions in hours of work could take the form of either reduced weekly hours of work or short-term furloughs of affected workers. Moreover, these working-time reductions may be unilateral organizational decisions, or alternatively they may be encouraged by working time-related crisis-response measures that promote reductions of hours of work in lieu of layoffs (for example, work-sharing or short-time work; for further details, see Ch. 5).

Although the data available for the period of the COVID-19 pandemic is preliminary and available for a relatively small number of countries, we do see the expected pattern in figure 21: the proportions of workers who regularly work less than 35 hours per week increased substantially between the fourth quarter of 2019 and the second quarter of 2020. This general pattern holds in most of the regions for which data were available at the time of preparation of this report, with the exception of South-Eastern Asia and the Pacific. The trend towards shorter hours of work was particularly pronounced in Latin America and the Caribbean and in Northern, Southern and Western Europe; in the latter case, this was most likely due to the widespread use of work-sharing/short-time work measures in that region. Nonetheless, the higher proportions of workers with short hours of work appear to have been short-lived: they reverted very close to pre-pandemic levels by the fourth quarter of 2020.

► **Figure 21. Trends in workers working less than 35 hours per week during the first year of the COVID-19 pandemic (total employment, fourth quarter of 2019 to fourth quarter of 2020, in %), by sex and detailed geographic region⁹**



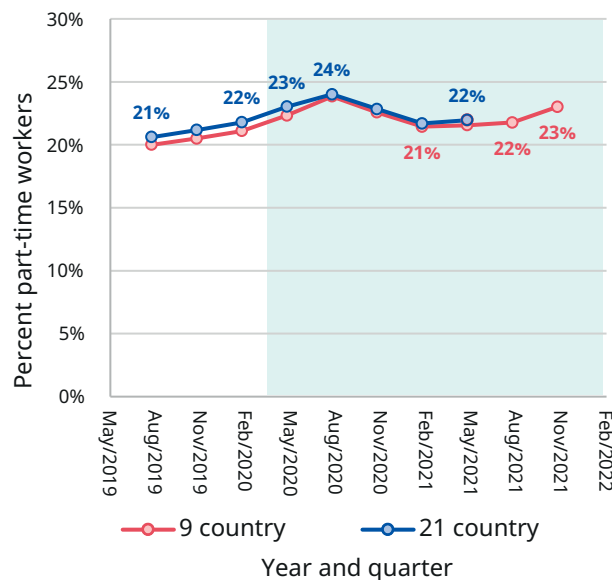
⁹ The graphs shown in figure 21 are ILO calculations using data from 60 countries or areas (excluding India and China), representing close to one third of global employment. Estimates for Africa (2 countries), the Arab States (1 country), Eastern Asia (2 countries), Southern Asia (1 country) and Central and Western Asia (2 countries) are not displayed due to the limited number of countries with available data for the period 2019–2020.

From a gender perspective, the proportion of women with less than 35 hours of work per week remained much higher than that of men – nearly double the rate for men with short hours of work in all the quarters analysed. The proportions of both women and men with short hours of work increased substantially in the second quarter of 2020, with the exception of South-Eastern Asia and the Pacific, but started to decline beginning in the third quarter of 2020. However, the proportions of both women and men with short hours of work remained slightly above their pre-pandemic levels in most regions at the end of 2020 – again with the exception of South-Eastern Asia and the Pacific, where they were substantially lower than prior to the pandemic.

Unfortunately data for 2021, the second year of the pandemic, was only available for a small subset of the countries shown in figure 21 at the time of preparation of this report, which itself covers fewer than half of the countries shown in the pre-pandemic figures analysed earlier in this chapter. Nonetheless, data was available for a small number of countries covering all of 2021 and the first few months of 2022. The numbers that follow are not comprehensive, nor do they necessarily represent worldwide trends; they represent the trends in a limited number of countries for which data covering the entire period of the COVID-19 pandemic was available. Nevertheless, the trends shown below are relevant and the sample includes some high-population countries such as the United States, Brazil, Indonesia and Mexico.

Figure 22 shows the percentage of workers with short hours of work for two country aggregates – the first includes 9 countries for which data were available through the end of 2021 and the second includes another 12 countries for which data existed up to mid-2021. The figure indicates that the proportion of workers with short (part-time) hours of work increased somewhat, from 21–22 per cent of all workers before the pandemic to 24 per cent of workers, before almost returning to pre-pandemic levels by early 2021. An increase is also visible for the last two quarters of 2021 for those countries in which data for this period was available, which may be due to the second- and third-wave lockdowns in some of them.

► **Figure 22. Percentage of workers working less than 35 hours per week during the COVID-19 pandemic**



Source: Labour force and other household survey microdata.

Nonetheless, even if the aggregate numbers of workers with short hours of work changed only slightly during the pandemic, workers with short hours of work during the pandemic may not have the same characteristics as those prior to the pandemic. An analysis follows of ten countries or areas with surveys for which individual identifiers are available for the first quarter of 2020, before the pandemic and the second quarter of 2020 following its initial onset. Table 1 shows two different stories in two neighbouring countries: Mexico and the United States.

► **Table 1. Flows into and out of part-time hours of work during the COVID-19 pandemic, Mexico and United States (first to second quarters 2020)**

	Mexico				United States			
↓ Initial \ Final →	Full-time	Part-time	Not working	Total	Full-time	Part-time	Not working	Total
Full-time	23%	12%	10%	45%	35%	5%	6%	46%
Part-time	3%	7%	8%	18%	4%	6%	4%	14%
Not working	2%	3%	32%	37%	1%	1%	37%	40%
Total	29%	21%	50%	100%	41%	12%	48%	100%

Source: Mexico, National Survey of Occupation and Employment microdata; and United States, Current Population Survey microdata.

In the United States, the proportion of workers with short hours of work fell from 14 per cent to 12 per cent of the working-age population from the first quarter to the second quarter of 2020. This change was due mostly to 29 per cent of workers with short hours of work transitioning to not working. The flows from full-time to part-time hours and vice versa compensated each other: 4 per cent of the working-age population transitioned from part-time to full-time hours of work and 5 per cent transitioned from full-time to part-time hours of work.

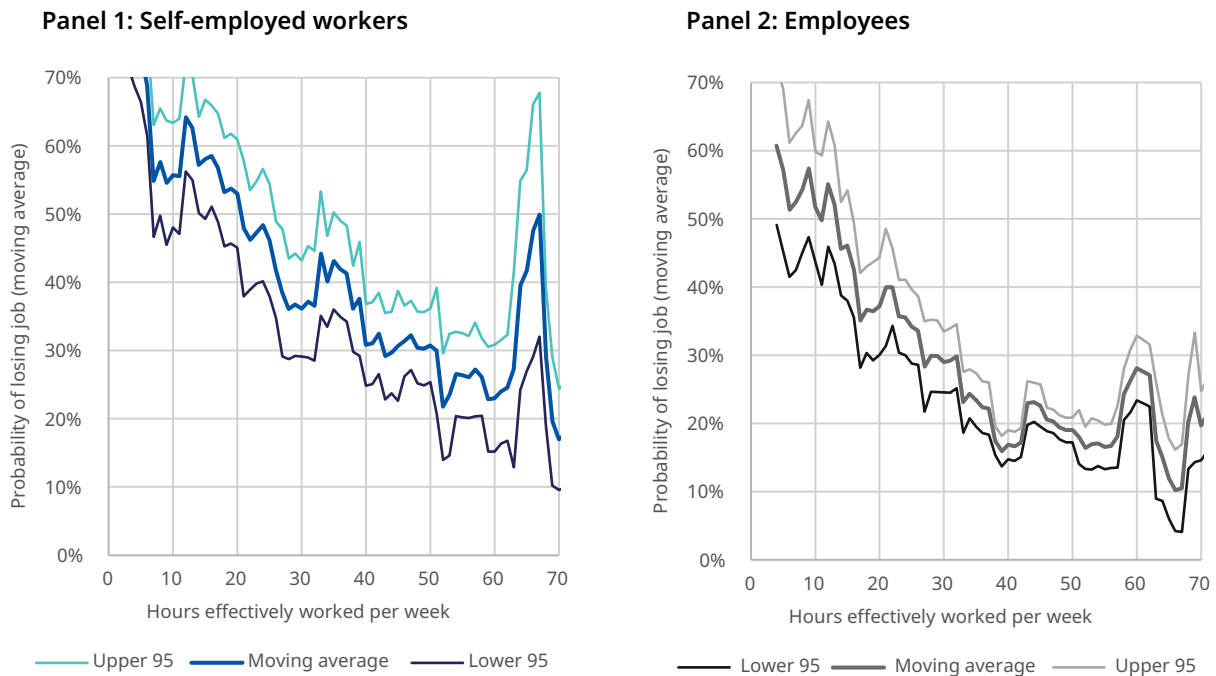
In Mexico, the story is very different. The proportion of workers with short hours of work increased from 18 per cent to 22 per cent of working-age individuals. This is because the flows between full-time and part-time hours of work were highly asymmetrical. While 12 per cent of working-age individuals transitioned from full-time to part-time hours of work, only 3 per cent took the opposite path. Combined with very limited transitions from being out of work to having part-time hours of work and large but similar transitions from having part-time and full-time hours of work to being out of work, this led to a net increase in short hours of work, from 18 per cent to 21 per cent of the working-age population.

Of the ten countries or areas whose flows were analysed, the Mexican story is the most common. Argentina, Bolivia (Plurinational State of), Brazil, Chile, Costa Rica, Mexico, North Macedonia and Portugal all followed the same pattern: many workers with short hours of work left the paid labour force altogether, but this was more than compensated by a net entry into short hours of work by previously full-time workers. Only in the United States, the United Kingdom and the Occupied Palestinian Territory were flows between part-time and full-time hours approximately equivalent.

Reduction of full-time hours and the prevention of job losses

Since it is possible to observe the state of employment of the same workers in two consecutive quarters, it is possible to see the relation that hours worked (in the first quarter) has on the probability of losing one's job (in the second quarter). Losing one's job is defined as being out of work, whether this is a furlough, unemployment or leaving the labour force and whether it is voluntary or involuntary. Figure 23 shows the odds of losing one's job in Mexico during the pandemic. The graphs with blue lines in panel 1 represent self-employed workers and those with the black lines in panel 2 represent employees. The thin lines above and below the thick lines in both panels represent the 95 per cent confidence interval.

► **Figure 23. Transitions out of employment during the COVID-19 pandemic, Mexico**



Source: Labour force and other household survey microdata.

While both employees and self-employed workers with short hours of work prior to the pandemic were likely to lose their jobs, those who had previously worked full-time were far more likely to keep their jobs. The trajectory of the declining probability of job loss is close to linear, from 1 hour to a little more than 40 hours of work per week, after which it flattens out.

A similar pattern is observed in most of the countries or areas analysed.¹⁰ Table 2 shows the increase in the chances of keeping one's job with each additional hour worked in the ten selected countries/areas. The first column shows the effect of hours of work alone, so that the percentage points given indicates the probability of job retention with each increasing weekly hour of work. The second column controls for demographics such as age, sex and schooling. The third column controls for occupation.

For example, each additional weekly hour of work prior to the COVID-19 pandemic increased the chances of an employee in Argentina keeping their job from the first to the second quarter of 2020 by 0.6 percentage points; therefore, a worker with 40 hours of work per week would be 18 percentage points more likely to keep their job than one with 10 hours of work per week. If basic demographics, particularly education, are controlled for, then the effect is cut in half and a worker with 40 hours per week becomes 9 percentage points more likely to keep their job than one with 10 hours per week. Controlling for occupation has very little effect.

► **Table 2. Increase in the probability of keeping one's job following the onset of the COVID-19 pandemic with each additional hour of work per week, selected countries/areas (percentage points)**

Country/area	Employees			Self-employed workers		
	Hours of work alone	+ demographic	+ occupation	Only hours	+ demographic	+ occupation
Argentina	0.6%	0.3%	0.3%	0.7%	ns	ns
Brazil	0.3%	0.3%	0.3%	0.5%	0.3%	0.3%
Chile	0.6%	0.3%	0.3%	0.8%	0.0%	ns
Costa Rica	0.9%	0.4%	nd	0.9%	0.3%	nd
North Macedonia	ns	ns	ns	ns	ns	0.1%
Mexico	0.8%	0.4%	0.4%	0.9%	0.1%	0.1%
Occupied Palestinian Territory	ns	ns	ns	ns	ns	ns
Portugal	0.4%	0.2%	ns	0.4%	0.2%	0.2%
United Kingdom	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
United States	0.7%	0.0%	0.0%	0.0%	ns	ns

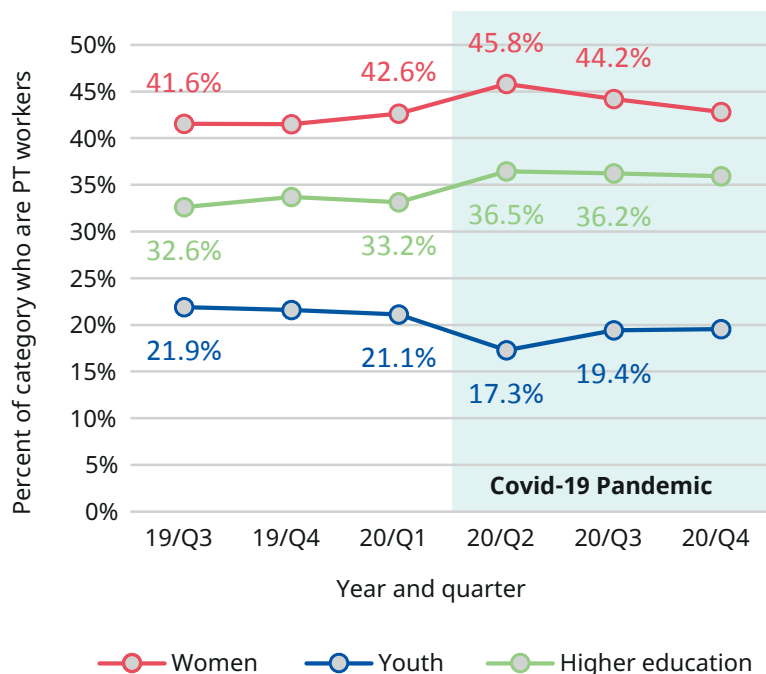
Source: Household survey microdata.

Note: ns = not significant; nd = no data.

¹⁰ In North Macedonia and the Occupied Palestinian Territory, small sample sizes make the confidence intervals very large and nothing can be discerned.

Table 2 shows that as expected, the effect of hours of work alone is stronger than the effect of hours of work once other characteristics are controlled for. It also shows that irrespective of controls, those who initially had shorter hours of work were more likely to lose their jobs (permanently or temporarily) than those who had longer hours of work. Only in the United Kingdom did hours of work have no significant influence on the risk of losing one's job during the pandemic, most likely because of job-retention schemes, which helped all workers, irrespective of their hours of work, to remain in employment. These flows into and out of short (part-time) hours of work suggest that the profile of workers with short hours of work may have changed during the pandemic. Figure 24 shows that this was indeed the case. Part-time workers became increasingly female, older and more educated. These compositional changes are a net result of the flows both into and out of short (part-time) hours of work.

► Figure 24. Composition of short-hours workers



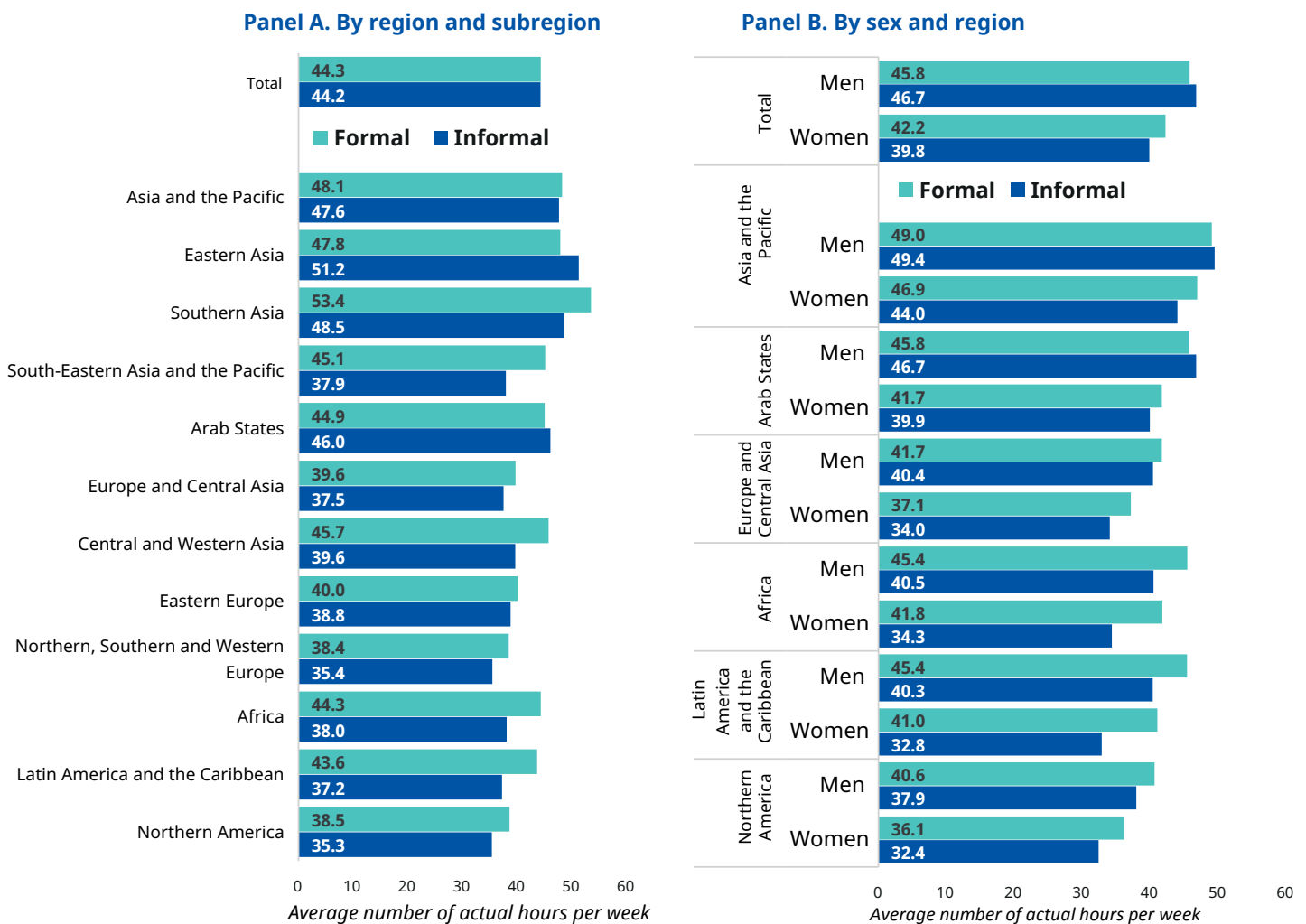
Source: ILO calculations based on microdata from 30 household surveys.

The main conclusion here is that although the incidence of short (part-time) hours of work as a percentage of total employment changed only slightly with the onset of the COVID-19 pandemic, this does not mean that the composition of short-hours workers remained the same. There were strong flows both into and out of jobs with short hours of work, with many short-hours workers leaving employment and being replaced by workers transitioning from full-time to part-time hours of work – most likely as a job preservation measure (for a detailed discussion of such measures, see Ch. 5). The net change in the total number of workers is small, but their composition has changed. Short-hours workers during the COVID-19 pandemic became increasingly highly educated, more female and older than they were before it.

2.4. The unique situation of hours of work in the informal economy

A comparison of the average number of hours of work per week in their main job between workers in informal and formal employment leads to the surprising conclusion that there is a convergence towards just over 44 hours of work per week for both groups at the global level (figure 26, panel A). This is a general conclusion that does not take into account differences between regions, between employees and other employment statuses, and between women and men (figure 25, panel B). In most regions, with the exception of East Asia and the Arab States, workers in informal employment work fewer hours of work on average than their counterparts in formal employment. Women in informal employment work on average 2.5 fewer hours of work per week than women in formal employment and 7 fewer hours of work per week than men in informal employment. Conversely, men in informal employment work 1 hour more per week than those in formal employment. More importantly, this average number of 44 hours of work per week at the global level — a single observation — hides major differences in terms of working-time patterns between formal and informal workers and within categories of workers in the informal economy.

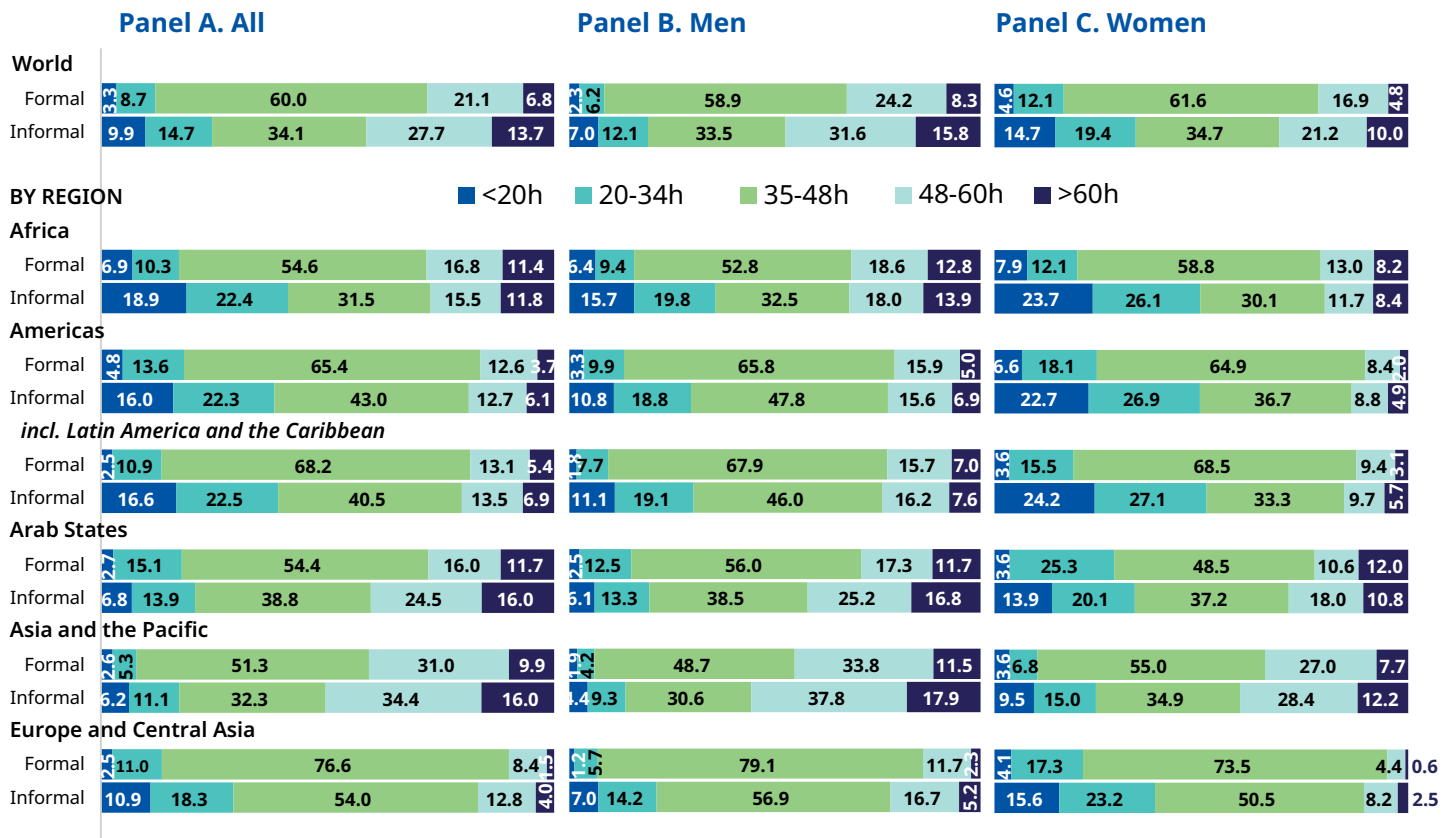
► **Figure 25. Average number of hours of work per week, workers in formal and informal employment (in %, 2019)**



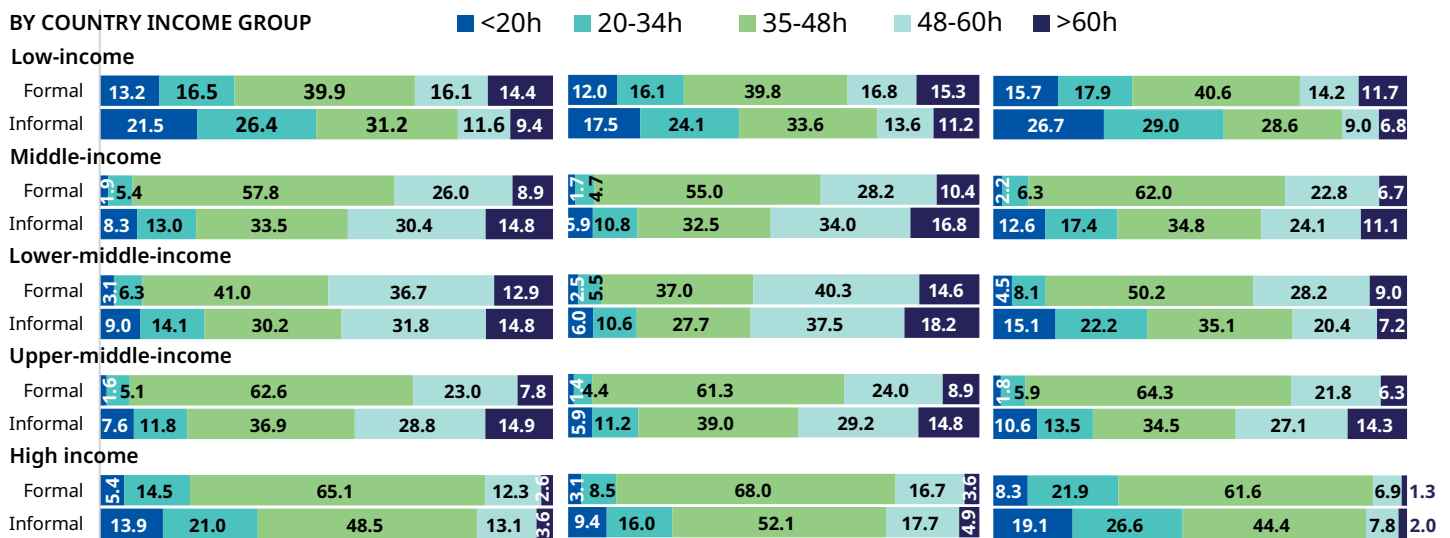
Source: ILO calculations, based on national household data from 140 countries representing 92 per cent of global employment.

Workers in informal employment tend to be over-represented outside the range of 35 to 48 hours per week that is considered as the normal or standard workweek.¹¹ Globally, nearly two thirds of workers in informal employment work outside the range of what may be considered as “normal hours of work” (35 to 48 hours per week), compared with 40 per cent of workers in formal employment, with no major differences between women and men (figure 26, panel A). The situation is the most extreme in low-income countries in sub-Saharan Africa and Southern Asia, where close to 80 per cent or more of workers in informal employment work outside normal hours of work. Their exclusion – by law or in practice – from the scope of regulations on working time contributes to this situation. Such working-time regulations apply to less than 40 per cent of all workers worldwide: those in formal employment. This proportion can be further reduced to workers whose employment relationship is recognized and declared – formal employees – who represent as little as one third of global total employment. Therefore, the issues of very short and long hours of work are both prominent in the informal economy that dominates much of the developing world.

► Figure 26. Distribution of workers in formal and informal employment, by range of hours of work per week, region, country-income group and sex (in %, 2019)



11 Normal hours of work (not including overtime) in all countries that establish such standards fall somewhere between 35 and 48 hours per week.



Distribution of formal and informal employment (%)

Source: ILO calculations based on national household data from 140 countries representing 92 per cent of global employment.

As discussed earlier in this chapter, very short hours of work – often undertaken as the sole available option rather than by choice – are often associated with time-related underemployment (ILO 2018b) and a potentially higher risk of working poverty (ILO 2016). Very short hours of work can also be among the factors of informality associated with ineligibility for certain social security benefits that are conditioned on workers meeting minimum thresholds in terms of their number of hours of work (for an analysis of the different levels of exposure to informality depending on working-time patterns, see box 3).

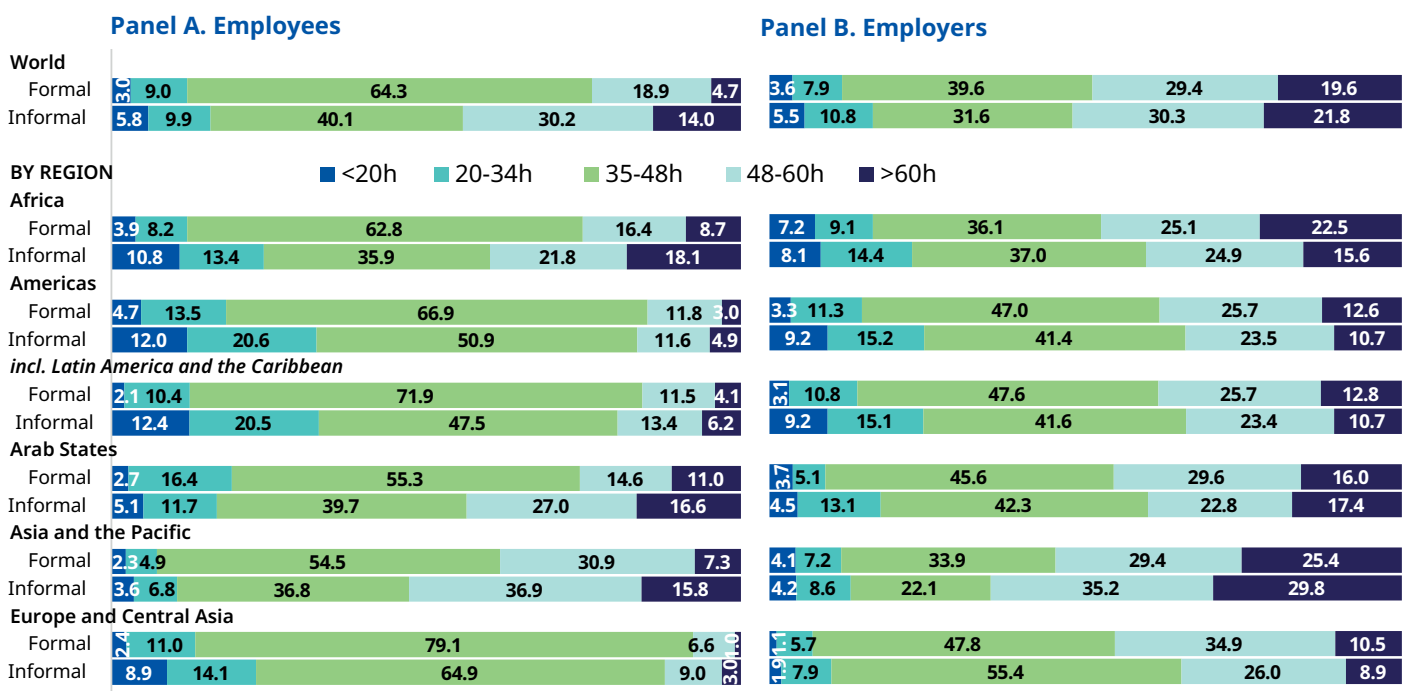
Globally, the share of workers who have very short hours of work – *less than 20 hours per week in their main job* – is three times higher among workers in informal employment (9.9 per cent) than among workers in formal employment (3.3 per cent; see figure 26, panel A). There are regional variations, but the proportion of workers in informal employment with less than 20 hours of work per week is everywhere at least 2.5 times higher than that of formal workers. Africa has the largest proportion of workers with very short hours (18.9 per cent), followed by Latin America and the Caribbean (16.6 per cent), while Europe and Central Asia is just above the average (10.9 per cent). Latin America and the Caribbean shows the greatest divergence between workers in the informal and formal economies – the proportion of informally employed workers with very short hours of work is almost seven times higher than the proportion among formally employed workers. Overall, the incidence of very short hours of work among workers in informal employment is higher in low-income countries (21.5 per cent); to some extent, this is associated with the difficulty of measuring hours of work in agriculture and the limited capacity of these workers to develop this activity beyond subsistence levels.

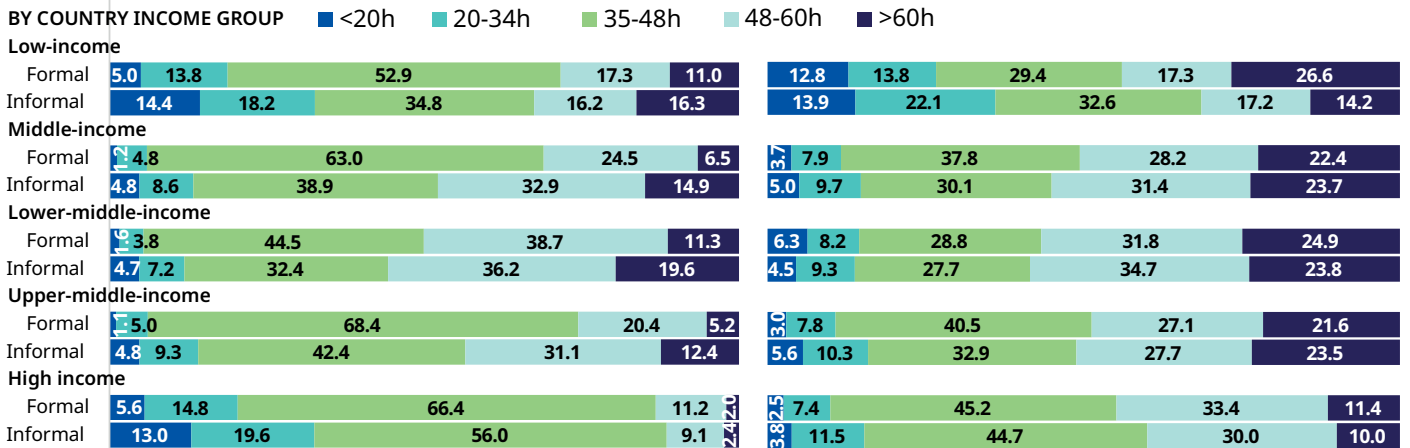
Self-employed (own-account) workers in the informal economy (figure 27, panel C) and contributing family workers (figure 27, panel D) are the most likely groups to work very short hours in paid work. Up to 10.9 per cent of own-account workers and 16.8 per cent of contributing family workers who operate in the informal economy work less than 20 hours per week. In Africa and Latin America and the Caribbean, just under one in five self-employed (own-account) workers operating informally and up to 30 per cent of contributing family workers are concerned, while the same proportions apply in low-income countries in general. In high-income countries, self-employed (own-account) workers in the informal economy are also exposed to very short hours of work (17.2 per cent). By contrast with the other country-income groups, there is a major divergence between these workers and formally registered own-account workers, who are three times less likely to work less than 20 hours per week.

The situation of women is the most critical (figure 26, panels B and C). Close to 15 per cent of all women in informal employment work less than 20 hours per week. This proportion is more than twice the proportion of men in informal employment and more than five times higher than the proportion of women in formal employment (4.6 per cent). It reaches nearly one fourth of women in informal employment in sub-Saharan Africa and Latin America. The most plausible explanation for this situation is women's higher share of unpaid household and care work (ILO 2018b; Lee, McCann and Messenger 2007), as well as the over-representation of women in employment statuses that are compatible with this higher share of unpaid work but are also highly vulnerable (contributing family workers and own-account workers).

While workers in informal employment are more likely to hold jobs associated with very short hours of work than those in formal employment, they are also even more likely to work long hours. This is due to the lack of their coverage by working-time regulations, either because of their exclusion from legal provisions on limits to hours of work or gaps in implementation and compliance. These long hours of work for workers in informal employment can also be due to low hourly earnings, for which they compensate by working longer hours if possible.

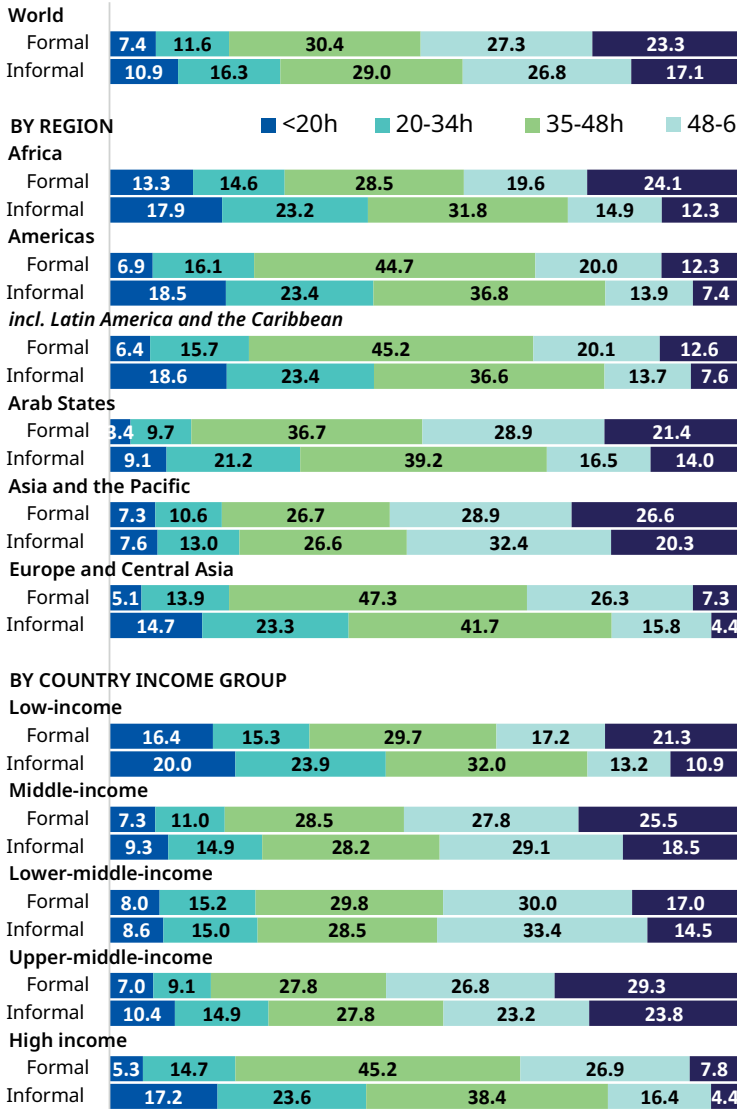
► Figure 27. Distribution of workers in formal and informal employment, by range of hours of work, region, country-income group and employment status (% , 2019)



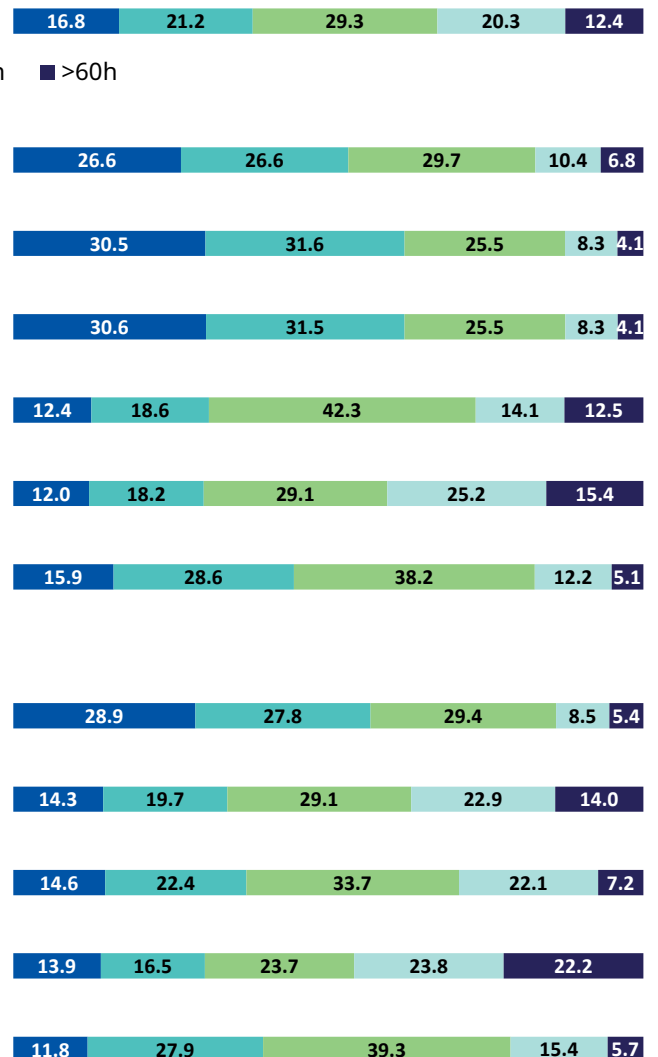


Distribution of formal and informal employment (%)

Panel C. Own-account workers



Panel D. Contributing family workers



Note: In panel D, “contributing family workers” are by definition in informal employment.

Source: ILO calculations, based on national household data from 140 countries representing 92 per cent of global employment.

Worldwide, more than 41 per cent of all workers in informal employment have more than 48 hours of work per week in their main job compared with 28 per cent of workers in formal employment. In other words, exposure to long hours of work is 1.5 times higher among workers in informal employment, with no significant difference between women and men. The phenomenon of excessively long hours of work in informal employment is most extreme in Asia and the Pacific, where it affects more than half of all workers in informal employment, compared with 40.9 per cent among their formal counterparts.

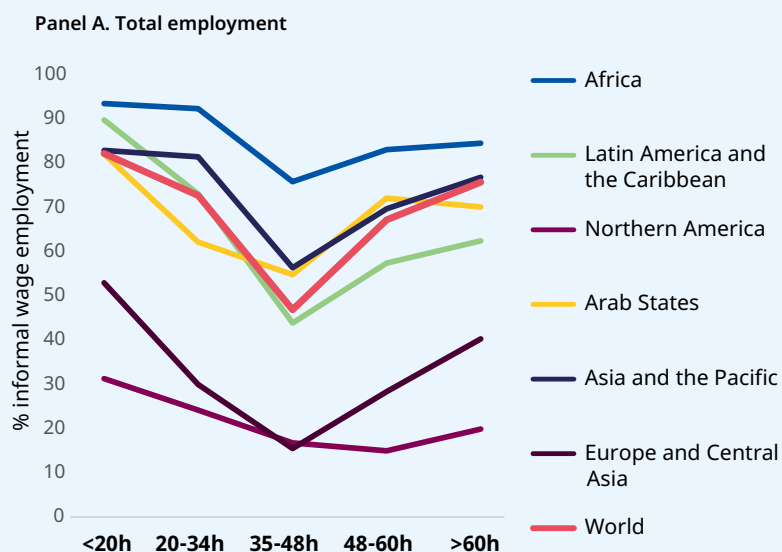
Long hours of work are observed for 45 per cent of employees in informal jobs, twice the proportion observed for employees in formal jobs (figure 27, panel A). The proportion of employees in informal jobs with long hours of work is the highest in Asia and the Pacific (52.7 per cent), compared with the still high but relatively much lower proportion of 38.2 per cent among formal wage workers. In Latin America and the Caribbean and in Europe and Central Asia, long hours of work are observed for less than one fifth of informal wage workers – a proportion that nonetheless exceeds the proportion in the formal economy. Self-employed (own-account) workers show a very different picture regarding long hours of work (figure 27, panel C). The global incidence of long hours of work among own-account workers is quite high (43.9 per cent) but is still lower than the comparable incidence for own-account workers in the formal economy, at more than half (50.6 per cent). In fact, in all regions of the world own-account workers who have established formal economic units are more likely to work long hours than their counterparts operating their businesses on an informal basis.

Independent of their status of employment, men are more exposed to long hours of work than women, whether they are in the informal or the formal economy. In both cases, the proportion of men with more than 48 hours of work per week is 1.5 times higher than that of women, in both the informal and formal economies (figure 26, panels B and C).

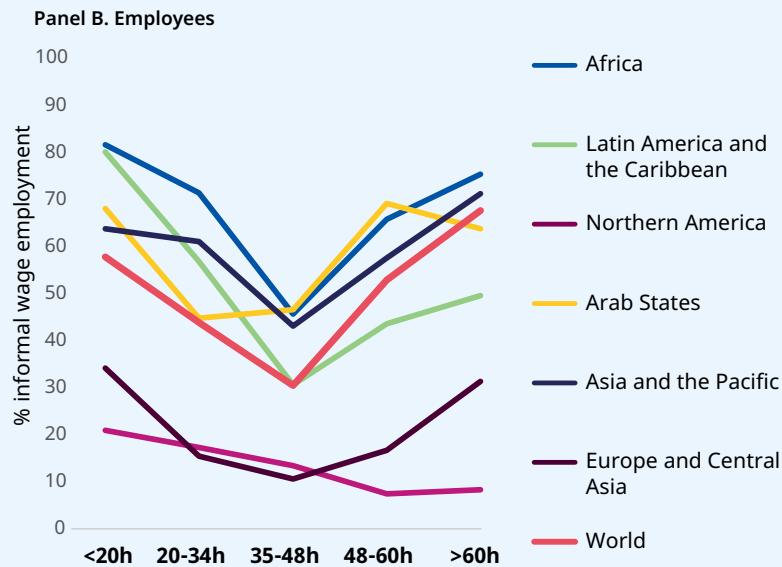
► Box 3. Very short hours of work as a factor contributing to informality

The incidence of informal employment is the highest among workers with very short hours of work and the lowest among workers, especially employees, who work in the range of “normal hours of work”.

Figure 28. Share of informal employment by range of hours of work (in %, 2019)



► **Box 3. Very short hours of work as a factor contributing to informality (continued)**



The pattern of the share of informal employment as a function of the number of hours worked is U-shaped. The proportion of workers in informal employment decreases from 82.1 per cent for workers with very short hours of work to its lowest level of 46.9 per cent for workers with 35 to 48 hours per week, before increasing again as the number of hours of work per week increases (figure 28, panel A). This trend is even more marked among employees (figure 28, panel B). Some of them are in informal employment precisely because their number of hours of work does not allow them to meet minimum thresholds in terms of hours worked or earnings to be eligible for social security benefits.

Source: ILO calculations, based on national household data from 140 countries representing 92 per cent of global employment.

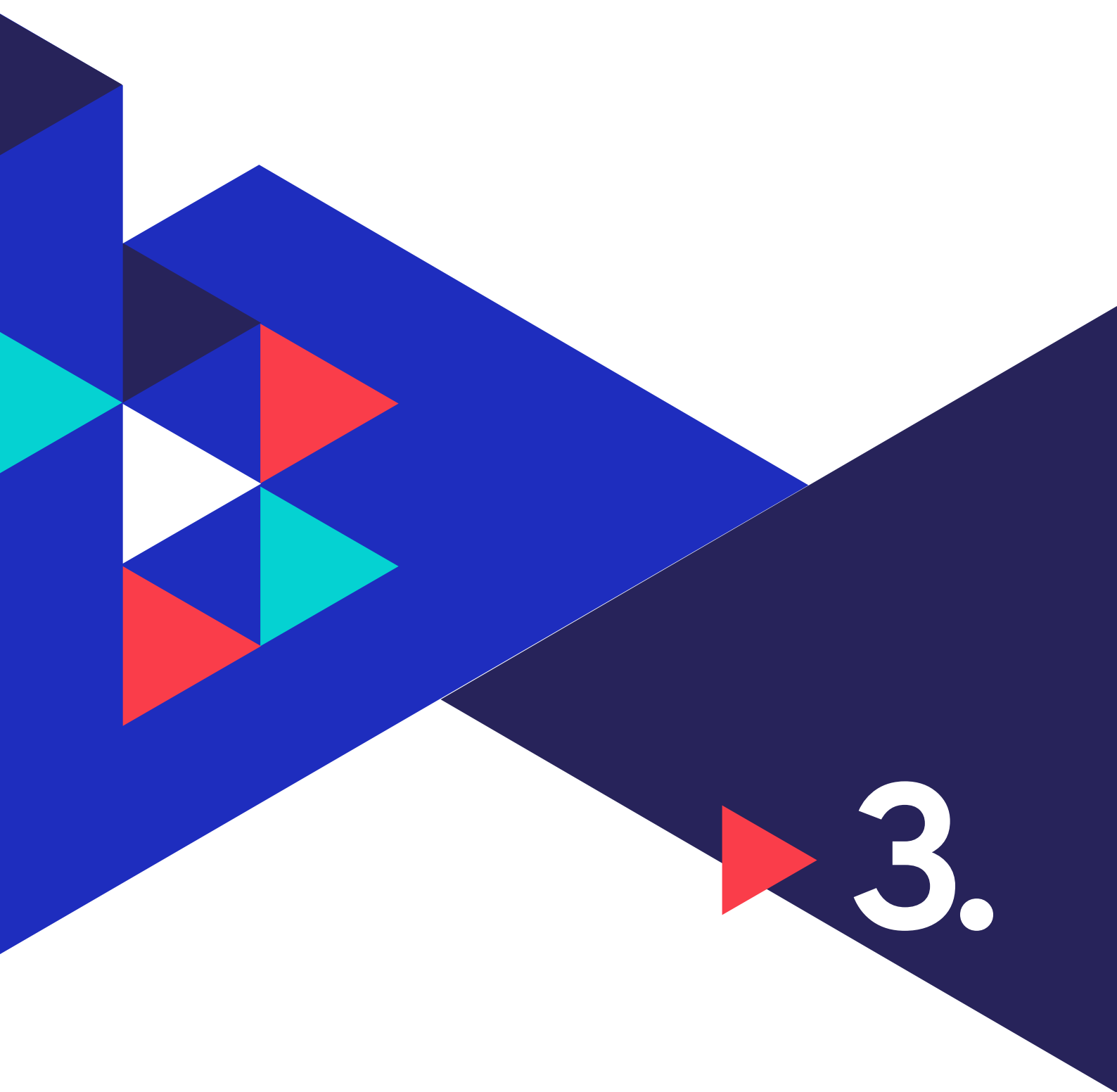
2.5. Conclusion

This chapter has reviewed important patterns and developments concerning hours of work – that is, the length or volume of working hours – in both the formal economy and the informal economy. The most prominent feature of working-time patterns and developments in today's world is the uneven distribution of hours of work. As we have seen, substantial portions of the global workforce have either long or short hours of work. While average hours of work fall well within the normal range – at approximately 43.9 hours of work per week prior to the COVID-19 pandemic – nonetheless slightly more than one third of the global workforce have more than 48 hours of work per week, while fully one fifth have short (part-time) hours of work (less than 35 hours per week), of whom roughly one third have very short hours of work (less than 20 hours per week). From a gender perspective, men are more likely to have long hours of work, while women are more likely to have short or even very short hours of work, as well as to experience time-related underemployment. Although long hours of work decreased slightly early in the COVID-19 pandemic and short hours of work increased somewhat during the same period, both of these phenomena were already reverting towards pre-pandemic levels by the end of 2020 (with some regional variations). Finally, the unique situation of hours of work in the informal economy provides an excellent illustration of the uneven distribution of hours of work: workers in the informal economy are more likely to have *both long and short hours of work* than those in the formal economy.

In addition, it appears that reduced hours of work during the COVID-19 pandemic – more specifically, the increase in the proportion of workers with short hours of work – had a positive effect on employment by helping to prevent job losses. We will examine this phenomenon in much greater depth in Chapter 5, which focuses on working time-related crisis-response measures during the COVID-19 pandemic.

2.6. References

- Giattino, Charlie, Esteban Ortiz-Ospina and Max Roser. 2020. "Working Hours". Our World in Data.
- Eurofound. 2015. *First Findings: Sixth European Working Conditions Survey: 2015*.
- Fagan, Colette, et al. 2014. *In Search of Good Quality Part-Time Employment: An International Review*. Conditions of Work and Employment Series No. 43. ILO.
- ILO. 2008. *Report of the Conference, 18th International Conference of Labour Statisticians, ICLS/18/2008/IV/FINAL, 2008*.
- . 2009. *Key Indicators of the Labour Market*. Sixth edition.
- . 2011. "Working Hours in Domestic Work". Domestic Work Policy Brief 2.
- . 2013. "Working Time of Live-In Domestic Workers". Domestic Work Policy Brief 7.
- . 2015. "The Right to Rest for Domestic Workers: Setting a Floor". Fact sheet.
- . 2016a. *Key Indicators of the Labour Market*. Ninth edition.
- . 2016b. *World Employment and Social Outlook 2016: Transforming Jobs to End Poverty*. ILO.
- . 2018a. *Care Work and Care Jobs for the Future of Decent Work*.
- . 2018b. *Women and Men in the Informal Economy: A Statistical Picture. Third edition*.
- . 2021. *Making Decent Work a Reality for Domestic Workers: Progress and Prospects Ten Years after the Adoption of the Domestic Workers Convention, 2011 (No. 189)*.
- Lee, Sangheon, Deirdre McCann and Jon C. Messenger. 2007. *Working Time Around the World: Trends in Working Hours, Laws and Policies in a Global Comparative Perspective* Routledge and ILO.
- Messenger, Jon C., and Paul Wallot. 2015. "The Diversity of 'Marginal' Part-Time Employment". INWORK Policy Brief No. 7. ILO.
- Messenger, Jon. 2018. *Working Time and the Future of Work*. ILO Future of Work Research Paper Series No. 6.
- OECD.Stat. 2021. "Average Annual Hours Actually Worked Per Worker".
- Republic of Korea, Ministry of Labour. 2009. *Employment and Labor Policy in Korea. Part. 4: Labor Administration with Respect for Workers' Dignity and Value*.
- Rudolf, Robert, 2014. "Work Shorter, Be Happier? Longitudinal Evidence from the Korean Five-Day Working Policy". *Journal of Happiness Studies* 15(5): 1139–1163.
- Yi-geun, Ryu. 2012. "How the Five-Day Workweek Changed Korean Employment". *Hankyoreh*, 31 August.



3.

3. Working-time arrangements and their effects on work–life balance

In addition to hours of work, the other major dimension of working time is its organization, which is commonly referred to as either working-time arrangements or work schedules. There are a multitude of different ways the workday can be organized; this chapter focuses on the most prominent forms present in the labour market today. Comparable international data on working-time arrangements is scarce, although a few countries, such as the Member States of the European Union (EU), the United States and the Republic of Korea, have made concerted efforts to collect this data. In fact, it was only in 2008 that the 18th International Conference of Labour Statisticians established a formal international definition of working-time arrangements, as well as a corresponding typology of the different arrangements. How hours of work are arranged or organized significantly influences workers' work–life balance, which in turn affects both employees and employers (ILO 2008).

This chapter reviews the most prominent working-time arrangements that currently exist and their effects on work–life balance. There has been an expansion of flexible working-time arrangements in recent decades. Working-time flexibility should be differentiated from other forms of labour market flexibility, such as numerical or contractual flexibility (for example, fixed-term contracts and temporary agency work), wage flexibility and functional flexibility. Working time can be made more flexible by a variation in one or more of the following four elements: the number of hours worked each workday; the number of hours worked each week; the specific hours that are worked each workday; and the specific days of the week that are designated as workdays. Specifically, the following working-time arrangements are analysed in this chapter: the classic standard workweek; shift work; part-time work; flextime and time-banking arrangements; compressed working weeks; and schemes for averaging hours of work, including annualized hours of work.

3.1. The standard workweek

The most common form of working-time arrangement is the standard workweek, which consists of fixed hours of work during each workday for a fixed number of days, typically Monday to Friday for a five-day workweek (Sunday to Thursday in the Arab States) or Monday to Saturday for a six-day workweek, with the traditional workday being from 8 or 9 am to 5 or 6 pm. The origins of the standard workweek can be traced back to the adoption of the ILO Hours of Work (Industry) Convention, 1919 (No. 1), which established the eight-hour workday. It is a fixed working-time arrangement, and although not as pervasive as it once was, it remains prominent in the formal economies of countries around the world.

As the status quo in the formal economy, the impact of the standard workweek on work-life balance has been given far less attention in research studies on working-time arrangements, with newer forms of working-time organization garnering greater interest. The standard workweek in certain respects facilitates work-life balance by providing a stable working schedule that enables workers to organize their personal lives around work commitments. Employees working a fixed workday schedule have significantly lower scores on negative indicators, such as overall job burnout and emotional exhaustion, compared to employees working on non-fixed workday shifts (Jamal 2004). A standardized work schedule may also benefit employers, such as by helping to establish better communication channels since everyone is at work at the same time.

However, critiques of the standard workweek highlight the inflexibility of its work schedules, which disproportionately affects women. The inflexibility of the standard workweek can make balancing paid work and personal commitments difficult and women typically have more of the latter, particularly family responsibilities. The need to pick up children from school prior to the end of the traditional workday is just one example. This incompatibility makes the standard workweek infeasible for many caregivers, especially women, who continue to carry out the majority of household and care-related tasks. It is therefore a contributing factor to the high prevalence of women working part-time or even withdrawing from the labour market completely. In short, while the standard workweek provides stable and predictable work schedules, the rigidity inherent in such fixed, unchangeable schedules can make balancing work and personal commitments challenging for workers with family responsibilities, especially women.

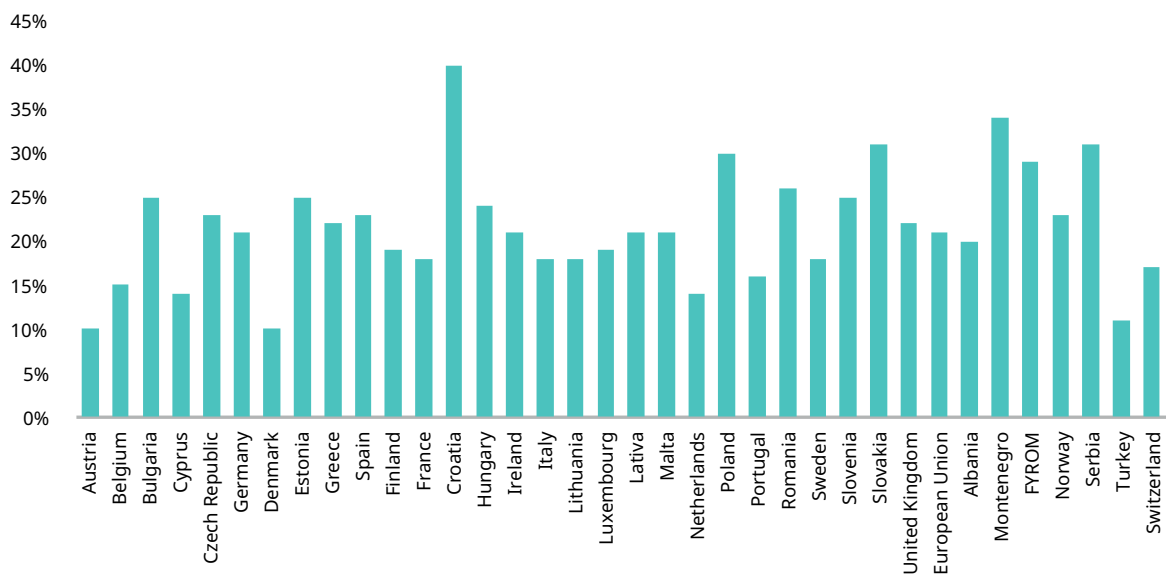
3.2. Shift work (including night and weekend work)

Shift work is “a method of organization of working time in which workers succeed one another at the workplace so that the establishment can operate longer than the hours of work of individual workers” (ILO 2011). Shift work was one of the first forms of flexible working-time arrangement, dating from the early twentieth century. It enables companies to extend operating hours up to 24 hours per day and seven days per week (continuous operations) and also to accommodate fluctuations in the demand for their products or services. There are two basic categories of shift work: fixed shift systems, in which a particular group of workers always works the same shift; and rotating shift systems, in which workers are assigned to work shifts that vary regularly over time and “rotate” around the clock (for example, from morning to afternoon/evening to night shift) (ILO 2018). Shift work is one of the most commonly used alternatives to the standard workweek and is pervasive across the globe.

In spite of there being no globally comparable data on shift work, some governments have carried out surveys that provide information on the prevalence of shift work. According to Eurofound’s Sixth Working Conditions Survey of 2017, 21 per cent of all workers in the EU work shifts, a 4 per cent increase since 2010 (Eurofound 2017). In Europe, shift work is most pervasive in Croatia, Serbia and Montenegro, where it represents the working-time arrangement for more than 30 per cent of the working population (see figure 29). Shift work is also highly prevalent in the United States, with shift workers making up 32 per cent of the workforce; this is probably due to the incidence of employees with multiple jobs that need non-overlapping shifts (RAND 2015; Marucci-Wellman, Lombardi and Willetts 2016). Shift work is less prominent in Asia and the Pacific (where data is available), making up 17 per cent of employees in Australia and only 8.5 per cent of the workforce in the Republic of Korea (Australia 2019; Republic of Korea 2017). Thus, there is substantial variation in the prevalence of shift work across the globe.

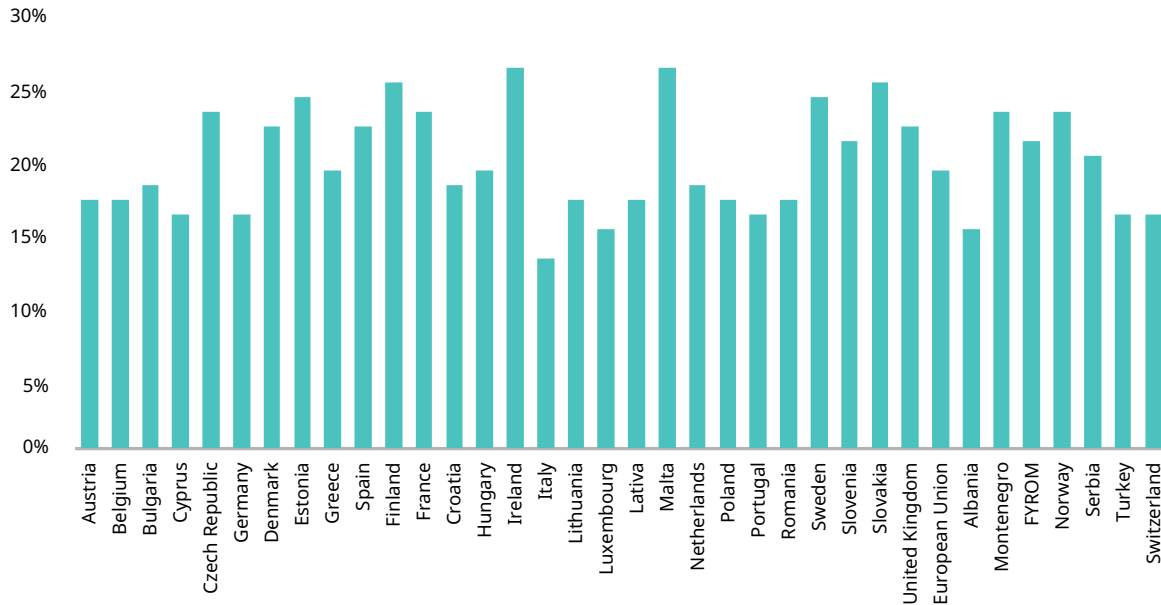
Shift work during atypical hours, particularly night work, is likely to pose the greatest risk to work-life balance within this type of working-time arrangement. In terms of night-shift work, the United States (8 per cent), Argentina (8.9 per cent) and the Republic of Korea (9 per cent) all have similar amounts (NORC at the University of Chicago 2018; Argentina 2018; Republic of Korea 2017). In the Pacific, 5.7 per cent of Australian employees work exclusively on night/evening shifts, while night work is the least common form of shift work for New Zealanders, with only 12 per cent of the workforce having worked at least one night shift in the span of four weeks (Australia 2019; New Zealand 2018). In the EU, 19 per cent of employees report working during the night (defined as working two or more hours between 10 p.m. and 5 a.m.) at least once a month (Eurofound 2017). Malta and Ireland have the greatest number of night workers, with one quarter of the working population working at least one night shift each month. In Chile, 61.5 per cent of workers work at least one hour on Saturday or Sunday, while in New Zealand that proportion is 48 per cent (Chile 2011; New Zealand 2018). In Asia, 58 per cent of workers in the Republic of Korea work on Saturdays and 26 per cent work on Sundays, which matches the finding in Chapter 2 concerning long hours of work in Asia (Republic of Korea 2017). In summary, shift work during atypical hours is not an uncommon occurrence for workers.

► Figure 29. Percentage of workers working shifts, 2015



Source: Eurofound, *Sixth European Working Conditions Survey 2015*, 2015.

► Figure 30. Percentage of workers working one or more nights per month, 2015



Source: Eurofound, "Sixth European Working Conditions Survey 2015", 2015.

Work-life balance effects

Shift work enables workers to have greater non-work time during daylight hours, which can help to facilitate work-life balance. Employees working shifts in the evening or at night have time during the day for leisure. However, that free time is likely to be at the cost of sleep, an important element of work-life balance (Finn 1981). Employees working rotating shifts can accumulate multiple days off that can provide longer breaks from work to relax and spend time with family (Finn 1981). Non-overlapping shifts, whereby each parent has shifts at a different time period than the other, can enable parents to have a work schedule that is better suited to childcare requirements, as the child can always be cared for by a parent (Hattery 2001). In comparison with the standard workweek, shift work therefore typically (although not always) offers greater schedule flexibility to meet family and childcare demands (Blachowicz and Letizia 2006).

Despite the potential of shift work to help facilitate work-life balance, this type of working-time arrangement, especially during atypical hours, poses risks to workers' health. Firstly, the inability of an individual's circadian rhythm to adapt to a new schedule that includes night work leads to a loss of sleep and the disruption of sleeping patterns, which negatively impacts both work and leisure time due to fatigue (Härmä et al. 1998). The new sleep cycle also leads to changes in gastric activity and intestinal enzyme secretion, which can lead to gastrointestinal problems (Harrington 2001). Shift workers can experience loss or change of appetite, constipation, dyspepsia, heartburn, abdominal pain, and an exacerbation of ulcer and bowel diseases (Harrington 2001). Secondly, shift work has been associated with a number of health conditions, such as hypertension, cardiovascular disease and (specifically for women) reproductive health problems and breast cancer (Shields 2002). In addition, shift work increases the risk of workers developing psychological conditions such as depression, mood disorders, neuroticism and chronic anxiety (Vogel et al. 2012). There is also a risk of exacerbating pre-existing health conditions, such as asthma, diabetes and epilepsy (Scott 2000; Scott and LaDou 1990). Finally, the atypical working hours that are often associated with shift work increase the likelihood of employees developing negative health habits (such as smoking, excessive alcohol consumption and poor eating habits). A study comparing Finnish nurses who worked shifts to those who did not do so found an increased likelihood of smoking and being overweight for the former group (Kivimäki et al. 2001). Thus, shift work has been found to pose significant risks to workers' health.

Shift work has also been found to negatively affect employees' personal lives due to the atypical working hours associated with shift work.¹² For example, shift workers reported spending less time with family members compared to non-shift workers, including both their partners and their children (Koller, Kundi and Cervinki 1978; LaValle et al. 2002). As a result, shift workers experience more family-related problems, such as lower levels of marital satisfaction and poorer relationship stability, than daytime employees because of the lack of synchronization between their hours on the job and their families' daily routines (Finn 1981; Presser 2000; La Valle et al. 2002). It is also a common reaction of spouses and children to constantly try to adapt to altered daily rhythms, which further hampers the already complex temporal organization of family life (Walker 1985). In addition, the social lives of shift workers may be disrupted because social activities in society are arranged according to the day-oriented rhythms of the general population, making it harder for shift workers to be socially engaged (Costa 2010). Angerer and Petru (2010) coined the term "social desynchronization" to refer to the uncoupling of shift workers' lifestyle habits and the temporal patterns of the society that can lead to alienation. Therefore, shift work that includes night work can potentially disrupt the personal relationships of shift workers because their lives do not synchronize with those of the general population.

¹² This situation is likely aggravated by the fact that the nature of many industries that have traditionally used shift work, such as manufacturing and hotels and restaurants, require workers' physical presence at the workplace.

3.3. Part-time work

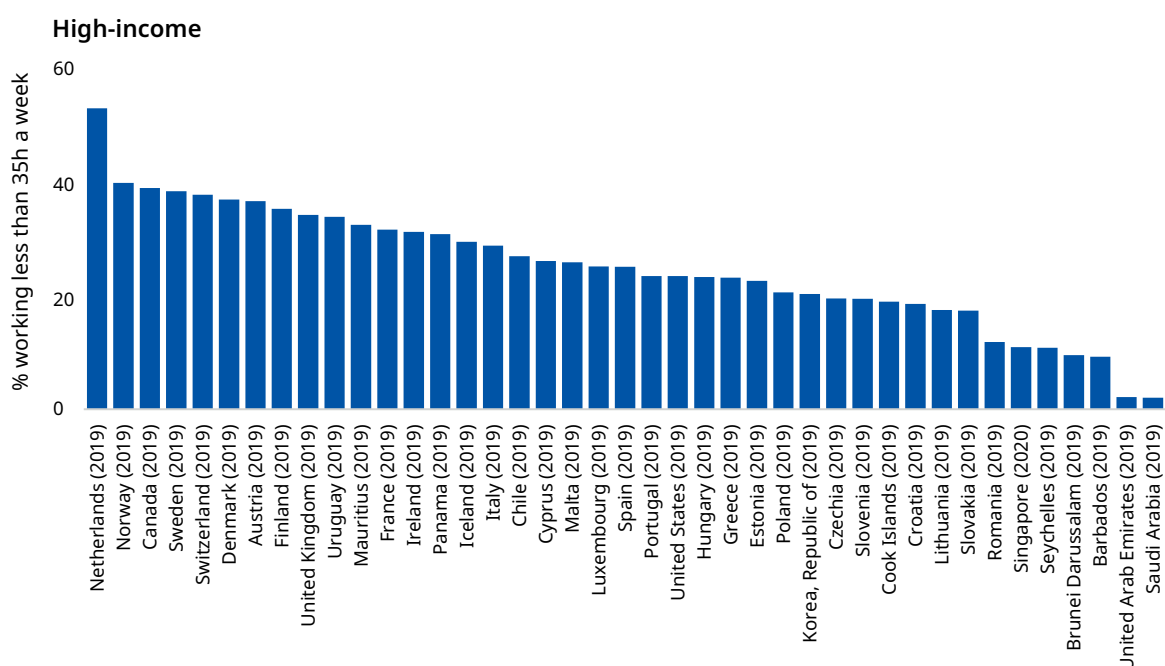
In Chapter 2, we reviewed and analysed various working-time patterns and developments, including those concerning short and very short hours of work. In this chapter, we focus on how those short (part-time) hours of work are organized and their effects on workers' work-life balance.

According to Convention No. 175, part-time work is a situation in which "normal hours of work are less than those of comparable full-time workers". However, as discussed in Chapter 2, most statistical definitions of part-time work focus on the number of hours worked per week – with thresholds of less than 35 hours per week or sometimes less than 30 hours per week (such as the definition of the OECD) – as the basis for determining which workers are working part-time. In this report, we use the standard ILO statistical definition of part-time work to define short hours of work – less than 35 hours per week.

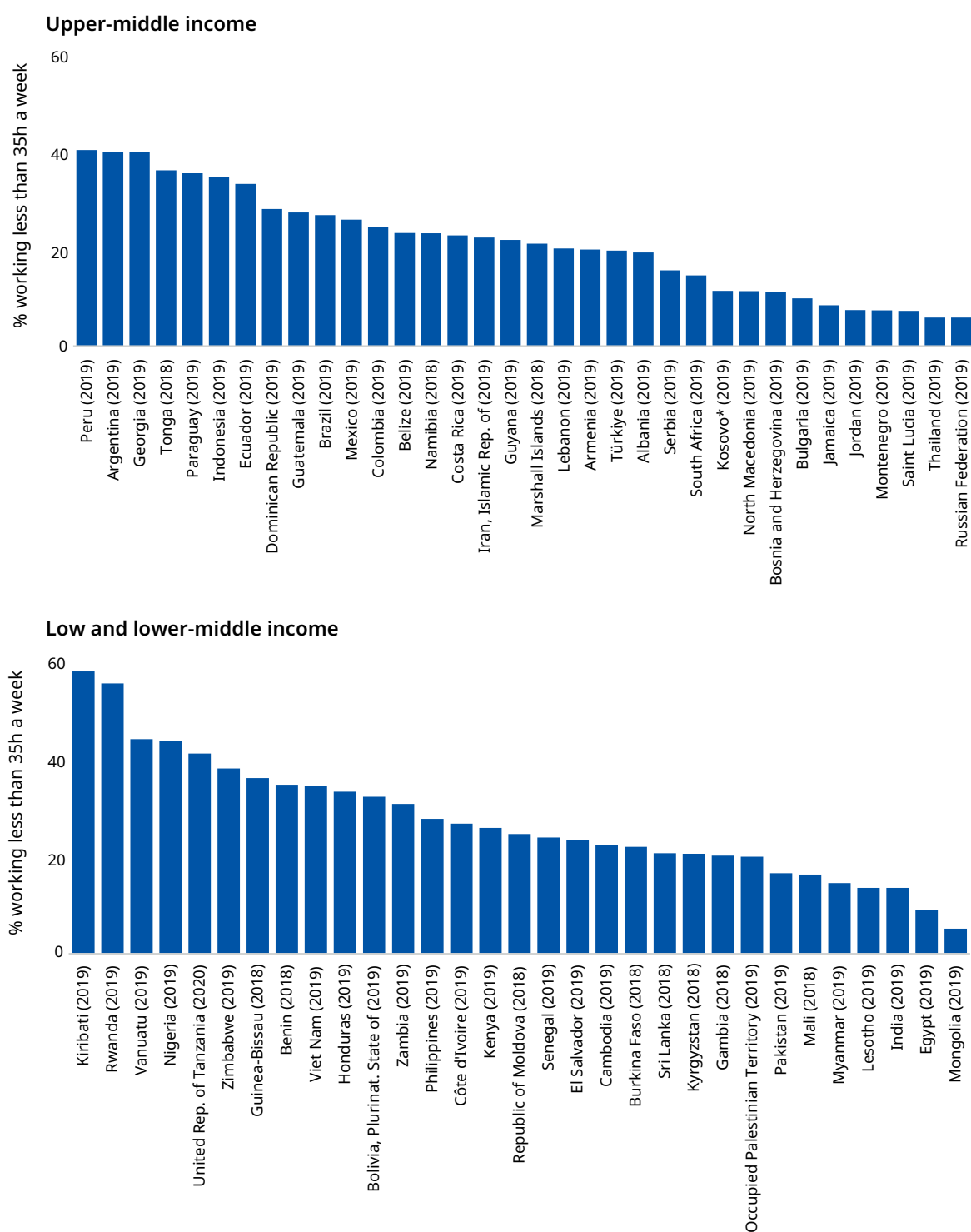
Part-time work can be organized in a wide variety of ways, but the most common model is one that establishes a number of fixed hours of work for each workday. Part-time work provides employers with the ability to secure optimal staffing and operational flexibility, for example in cases in which there are peak periods and periods of less activity or where the work is intermittent in nature and thus insufficient to justify full-time positions.

Figure 31a highlights the significant variations in the incidence of part-time employment across the world and among country-income groups. In high-income countries or areas, part-time employment is the highest in the Netherlands: part-time work measured as the percentage of workers who work less than 35 hours a week makes up 52 per cent of employment in that country. Compared with other countries or areas in Europe and Central Asia, this is more than 10 percentage points higher than the share of part-time work in Sweden, Norway or Switzerland. While the incidence of part-time employment is generally higher in high-income countries or areas, Nigeria, Peru, Rwanda and the United Republic of Tanzania are outliers among developing and emerging countries or areas, with more than 40 per cent of their workers in part-time employment. By contrast, part-time employment has a low incidence in the Arab States and many formerly communist countries or areas. Part-time employment represents less than 5 per cent of total employment in the United Arab Emirates and Saudi Arabia and less than 10 per cent in Bulgaria and the Russian Federation. Overall, there is considerable variation in the incidence of part-time work in the sample of countries and areas shown in figure 31a.

► **Figure 31a. Part-time employment as a percentage of total employment, selected countries or areas by country-income group, 2018–2019**



► Figure 31a. Part-time employment as a percentage of total employment, selected countries or areas by country-income group, 2018–2019 (continued)

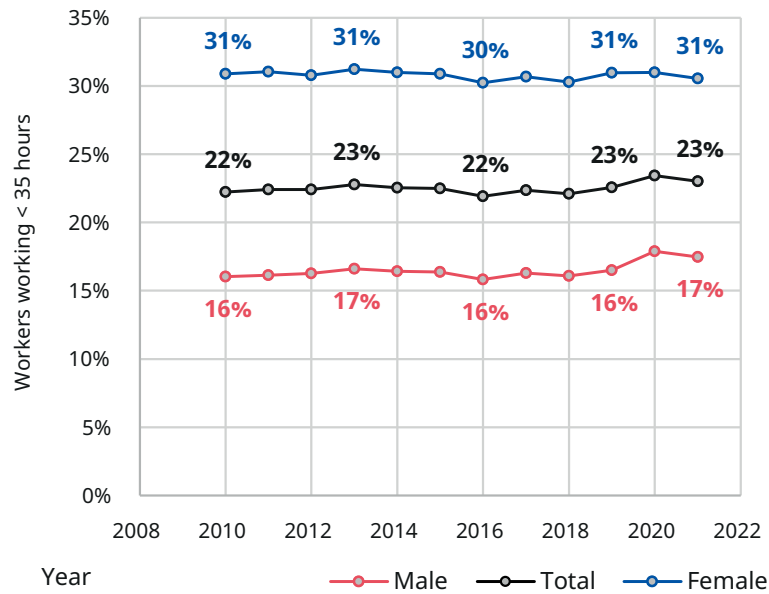


* As defined in UN Security Council resolution 1244 of 1999.

Source: ILO calculations based on national household survey data; countries selected are those with data for 2018 or 2019.

Concerning trends in part-time work as a percentage of employment, over the most recent decade since 2010 the trend line appears to be essentially flat overall, as shown in figure 31b. From a gender perspective, there was a slight uptick in the proportion of men working part-time in 2020 and 2021, almost certainly as a result of the pandemic-induced recession.

► **Figure 31b. Trends in part-time work as a percentage of employment, 2010–2022**



Source: ILO, ILOSTAT database.

3.3.1 The effects of part-time work on work–life balance

The effects of part-time work on work–life balance arise from three different factors. The first key factor is the number or volume of hours of work. Overall, the smaller number of hours of work associated with part-time work typically improves work–life balance outcomes, such as the compatibility of working hours with family and other non-work commitments (Fagan et al. 2012). Similarly, a Dutch study comparing mothers working full-time and part-time found the latter group to have a higher reported level of work–life balance (Van Rijswijk et al. 2004).

The second key factor contributing to the effects of part-time work on work–life balance outcomes concerns the work schedule. Whether or not the promise of improved work–life balance offered by shorter hours of work is realized in practice depends on the extent to which the work schedule of the part-time worker is compatible with their personal commitments. The following paragraph provides a succinct summary of the available evidence (Fagan et al. 2012, p. 39):

“Simply working shorter hours does not appear to resolve work-life conflict issues for those on atypical or non-standard work schedules, while control over the scheduling of working hours is also important. Complicated child-care arrangements, combined with reduced traditional ‘family’ time at weekends and in the evenings by spouses working at different times to cover childcare (‘shift-parenting’), appear to reduce parental satisfaction with atypical working schedules, even when working hours are relatively short.”

The third key factor that affects the work-life balance outcomes of part-time workers is the extent to which part-time work is an entirely voluntary choice on the part of the worker or rather a highly constrained choice due to a lack of full-time options (often referred to as involuntary part-time work). Where part-time work is a highly constrained choice due to a lack of full-time options, this has a negative effect on workers’ work-life balance even when their hours of work are very short, a point that is analysed in-depth in the following section.¹³

3.3.2 Very short hours of work and “on-call” working-time arrangements

When hours of work are very short, defined as less than 15 or 20 hours of work per week, part-time work often takes the form of “on-call” working-time arrangements. Such arrangements require workers who accept them to be available for potential work assignments during certain periods of time and they are then called in to work as and when needed (Campbell 2018).¹⁴ On-call workers can be divided into two groups, depending on whether or not a guarantee of a minimum number of hours per week is included in the employment contract. They may have either (1) a zero-hours contract, which does not guarantee a minimum number of hours of work; or (2) a contract that does provide a minimum number of hours of work (Campbell 2018). However, this seemingly simple dichotomy masks a plethora of different forms of on-call work that are unique to the legal and regulatory frameworks of each country.

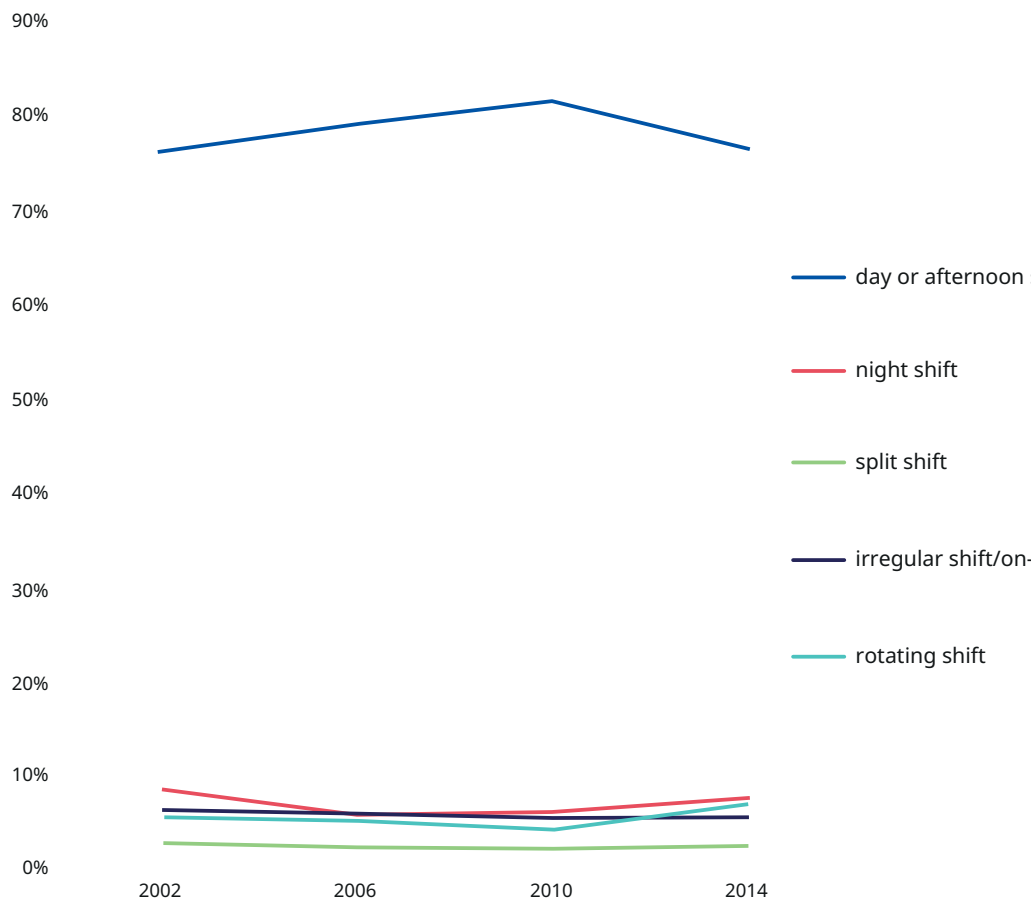
There is no internationally comparable data on on-call working-time arrangements, while only a few countries have attempted to measure the percentage of on-call workers in the labour market. According to Statistics Netherlands, there were 777,000 on-call employees in the Netherlands in 2013, when 9 per cent of all work contracts were on-call contracts, of which 4 per cent had a fixed number of hours (Eurofound 2015). In the United Kingdom, the number of on-call contracts, especially zero-hours contracts, have increased significantly since the 2008–2009 recession; as of 2019, there were 896,000 workers on zero-hours contracts representing 2.7 per cent of employment. However, on-call work is not present exclusively in Europe. Figure 32 illustrates that almost 10 per cent of American employees work

¹³ It is important to clarify that the term “involuntary part-time work” is not intended to suggest that such work is a type of forced labour. In the ILO context, Article 9 of Convention No. 175 refers to “productive and freely chosen part-time work which meets the needs of both employers and workers”; in this context, even “involuntary part-time work” would be considered to be “freely chosen”. The issue here is not whether such part-time work is freely chosen, but rather the extent to which that choice is a constrained one.

¹⁴ It is worth noting that, although on-call work does not necessarily require workers to be physically present at the employer’s premises, those economic sectors in which on-call work is typically used (for example, retail sales, restaurants) by their very nature require workers’ physical presence.

on-call, which is known as “just-in-time” scheduling in the United States. While this proportion is relatively modest, the size of the United States labour market means that in terms of absolute numbers, many American workers have this type of working-time arrangement. However, a separate study estimated the percentage of American employees performing on-call work to be only 2.6 per cent in 2015 (Katz and Krueger 2016).

► Figure 32. Type of work schedule, United States, 2002–2014



Source: McCrate 2018.

3.3.3 The effects of on-call work on work-life balance

Proponents of on-call work claim that on-call workers are better able to balance work with their personal commitments, such as family or education, as they have greater influence over the scheduling of their working hours. There are some surveys of on-call workers that support this argument. One study suggested that 47 per cent of workers were “very satisfied” or “satisfied” with having no guaranteed hours (Chartered Institute of Personnel and Development 2013). Also, a Resolution Foundation report suggests that workers who do not need a fixed number of hours may value the flexibility of zero-hours contracts (Pennycook, Cory and Alakerson 2013). Yet, the same report also recognizes that the purported choice and flexibility of on-call work are concepts that often do not manifest themselves in practice due to “the power imbalances that operate in many workplaces” (Pennycook, Cory and Alakerson 2013). More recent research evidence suggests that the great majority of workers do not value such on-call arrangements. For example, an analysis of on-call call centre staff in the United States found that the vast majority of them do not value such schedule flexibility because they have little or no control over schedule variations (Mas and Pallais 2017). Another study reported interviews with on-call workers who found that they often felt like they could not refuse work for fear that a refusal might jeopardize their hours of work in the future (Bohle et al. 2004). Such forms of working-time flexibility can provide greater access to the labour market for certain groups of persons, such as students and senior citizens, allowing them to earn some income to supplement their other sources of revenue. Nonetheless, while on-call work may be beneficial for a minority of workers, the literature reviewed above suggests that the majority of workers do not experience such flexibility positively, as it is seemingly not on their own terms but rather on their employers’ terms.

There is also substantial evidence that on-call work negatively affects work-life balance due to the unpredictability of the work schedules that are often associated with this working-time arrangement. Poor work-life balance is associated with workers having unpredictable schedules and lacking control over their working hours. On-call workers regularly report frequent changes in the starting and ending times imposed by management, often with little advance notice (McCrate 2018). As a result, on-call employees report difficulty in planning and coordinating non-work time with others, including family, friends and service providers (McCrate 2018). Another study found that many on-call workers are only told their starting time “with finishing times being decided by a manager or supervisor at some time during the shift” (Bohle et al. 2004). Unsurprisingly, a quantitative analysis of data from a large sample of American workers (4,534 individuals) found that irregular working schedules were strongly associated with greater work-family conflict (Golden 2015). The negative impact of on-call work is most acute for families with young children, for whom working unpredictable hours can exacerbate the problem of managing childcare expenditures. For example, advance payment is normally required by childcare providers, so that their work schedule planning must be made at least a week in advance, so that last-minute changes in work schedules provide significant challenges for parents (Pennycook, Cory and Alekson 2013). Economic status is a determinant of the prevalence of on-call work, with this form of work being more prevalent in low-paid positions. An analysis of low-income mothers in Wisconsin, United States, found that the children of mothers on unpredictable, atypical schedules were more likely to be reported by teachers as having problems with school engagement and performance and externalizing behavioural problems (Hsueh 2006). Overall, the unpredictability of the schedules associated with on-call work is detrimental to the work-life balance of employees, especially those with children.

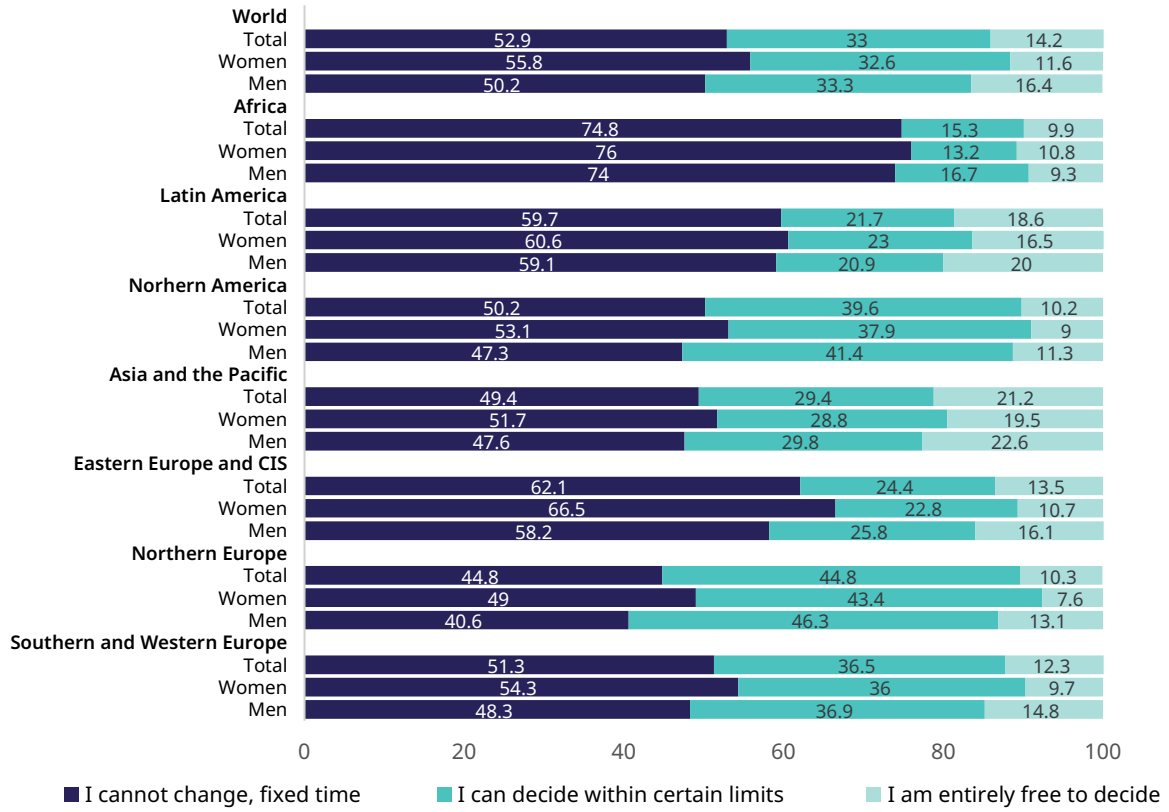
On-call work has also been found to negatively impact the health of workers. Unpredictable work schedules are associated with health issues such as digestive problems, sleep disorders, negative mental health symptoms, reproductive problems and cardiovascular complaints (McCrate 2018). In another study of on-call work schedules in the United Kingdom, researchers linked this type of working-time arrangement with anxiety and insecurity due to constant employment instability (Wood, Burchell and Coutts 2016). In addition, the financial instability caused by fluctuations in hours of work and hence income makes meeting financial commitments such as paying rent challenging and promotes anxiety that negatively affects many aspects of paid and personal life (McCrate 2018). Therefore, the preponderance of the available evidence suggests that on-call work schedules increase the risk of workers suffering from psychological and physical health problems.

3.4. Flextime, including time-banking arrangements

Flextime is perhaps the most common form of flexible working-time arrangement. Basic flextime arrangements (also known as «flexible schedules» or «flexible hours») allow workers to choose when to start and finish work, based on their individual needs and preferences (within specified limits) and in some cases even the number of hours that they work in a particular week. Normally, formal flextime programmes involve establishing a period of core hours when all employees are required to be at work (such as 10 a.m. to 4 p.m.), although some flextime programmes have no core hours at all (ILO 2011). Time-banking arrangements are a form of flextime that permit workers to build up “credits” or accumulate “debits” in hours worked, up to a maximum amount; the periods over which credits or debits are calculated are much longer than with flextime, ranging from several months to one year or even longer (ILO 2011).

Figure 33 provides a snapshot of the extent to which work schedules are fixed (shown in green) or can vary (shown in blue or grey) based on workers’ individual needs and preferences. Flexible work schedules may either vary within certain established limits, which is the classic definition of flextime (shown in blue) or may not be constrained at all, which is considered to be full working-time autonomy (shown in grey). As figure 33 shows, globally nearly half of all employees (47.1 per cent) have access to some form of flexibility concerning their work schedules – typically within certain limits (flextime) – and such schedule flexibility is more widely available to men than to women. From a geographic perspective, access to such flexible schedules is most widespread in Northern Europe (55.1 per cent) and least common in Africa, where nearly three quarters of employees work on traditional fixed schedules. Overall, ISSP data show that workers with the highest levels of education and personal income have the greatest access to work schedule flexibility, which is more common in private sector enterprises than in the public sector.

► Figure 33. Fixed schedules versus flexible schedules, by geographic region and sex



Source: ISSP, 2015.

3.4.1 The effects on work–life balance

Employees have more control over their work schedules with flextime, so that they can arrange their working time to better suit their non-work commitments, leading to improved work–life balance. For example, a study of the impact of family-friendly policies on nurses in Nebraska, United States, found that flextime led to greater work–life balance due to nurses being empowered to better control their working time (Thomas and Ganster 1995). The positive effects of flextime are especially apparent for workers with children, who have practical challenges regarding managing work and childcare, as well as persons with disabilities. For workers with children, flextime is considered important in order to perform both work and family responsibilities (Galea, Houkes and De Rijk 2014). A meta-analysis of eight studies analysing flextime identified that schedule flexibility was significantly associated with less work–family conflict (Byron 2005). The positive impact of flextime appears to be a global phenomenon, as demonstrated by a quantitative analysis of a sample of IBM workers across 75 countries, which found that employees with high schedule flexibility were about one third as likely to report work–life conflict compared to those with low flexibility (Hill et al. 2010). Also, flextime positively impacts the mental health of workers, contributing to lower levels of stress (Haar 2007), while multiple studies have highlighted a link between flextime and job satisfaction (Saltzstein, Ting and Saltzstein 2001; Erza and Deckmann 1996). Flextime is therefore clearly associated with a better work–life balance, as employees are empowered (within specified limits) to organize their work schedules to best suit their work and non-work commitments.

In addition to its benefits for workers, it is important to state that flextime has multiple benefits for employers as well. It is associated with lower employee turnover, leading to reduced recruitment costs, and scholars have also found that it increases productivity (Koekemoer and Downes 2011). In addition, a recent ILO report on productivity changes in relation to flexible work arrangements (including remote work) found that out of more than 61 per cent of the enterprises surveyed that offered flexible work and/or remote or telework, nearly 70 per cent reported increased productivity (ILO 2019). Reciprocity is a key employer benefit of flextime, as employees value the better work–life balance and therefore reciprocate with enhanced commitment and loyalty to their organization (Haar 2007). Flextime therefore not only benefits the work–life balance of employees but also businesses as well.

Critics of flextime argue that it reinforces gender stereotypes and an unequal sharing of unpaid household and care work. Studies on the utilization of flextime find that mothers predominately use it for childcare, while fathers typically use it for personal activities (Singh, Finn and Goulet 2004). One study highlights that new challenges can emerge with flextime usage, such as disengaging from work and time-management challenges in order to best arrange team schedules (Koekemoer and Downes 2011). Therefore, employees who utilize flextime may risk negatively affecting their careers. There are also scholars who challenge the dominant perspective that flextime is beneficial for work–life balance. For example, one meta-analysis of five studies found no significant relationship among the presence of flexibility programmes (both time and place) and either work-to-family and family-to-work conflict (Mesmer-Magnus and Viswesvaran 2006). Nevertheless, these scholars represent a clear minority, and the preponderance of the available research evidence suggests that flextime arrangements do in fact benefit workers. Moreover, the use of “flexible working”,¹⁵ particularly the widespread deployment of telework/remote work as a crisis-response measure during the COVID-19 pandemic, appears to have normalized flexible work arrangements; however, any definitive conclusion must await the results of new, post-pandemic research studies.

¹⁵ “Flexible working” is a catchall term that can include almost any type of work arrangement beyond a standard workweek that is worked at the employer’s premises. It typically includes flextime and telework/remote work and may also include part-time work, term-time work and various other working-time arrangements.

3.5. Compressed workweeks

Compressed workweeks involve scheduling the same number of hours of work over fewer days than is typical in a standard workweek, resulting in longer workdays (ILO 2018). Typically, they extend the workday beyond 8 hours and reduce the number of consecutive workdays to fewer than five. For example, a compressed workweek reduces a 40-hour workweek that is normally worked as five 8-hour days to four 10-hour days. This is called a “4 x 3” compressed workweek arrangement (four consecutive workdays followed by three consecutive days of rest) (ILO 2018). Unfortunately, internationally comparable data on compressed workweeks does not exist and as a result it is not possible to provide a comparative analysis of the prevalence of this form of working-time arrangement.

3.5.1 Effects on work–life balance

Studies of the effects of existing compressed workweeks generally conclude that they positively affect work–life balance. A meta-analysis of 40 studies of their effects on work–life balance found that most studies identified a positive link between compressed workweeks and work–life balance (Bambra et al. 2008). They have been particularly popular with the police and separate studies of this profession in both Canada and the United Kingdom have established that they were associated with significant improvement across the work–life balance indicators used (Cunningham 1981; Totterdell and Smith 1992). Employees gain longer weekends due to the extra day off from work. One study identified multiple benefits from the extra day released by compressed workweeks, including that it allowed workers to spend more time with families, take weekend trips together, take children to their activities, socialize with friends and increase their time for personal activities (Brown et al. 2011). Another study found that employees’ overall job satisfaction, leisure time and life satisfaction – three of the five variables measured – improved significantly (Pierce and Dunham 1992). Also, compressed workweeks not only benefit employees but also benefit employers by decreasing overhead costs as workers are present for fewer days, enabling businesses to save on operating and maintenance costs.

However, there is a lack of consensus concerning the physiological and psychological health effects of compressed workweeks. Some research suggests that their introduction has been found to increase fatigue, stress, and psychological and physiological health symptoms because of the longer workdays (Pierce and Dunham 1992; Sparks et al. 1997). Similarly, one analysis found that employees on compressed workweeks reported having more health-related problems, including musculoskeletal problems such as pain, numbness, stiffness and burning in the neck, shoulders and back (Lipscomb et al. 2002). Conversely, a different study found that they led to multiple health benefits, including a reduction in heart problems and gastrointestinal problems, along with an increase in sleep and a subsequent decrease in fatigue and irritability (Williamson, Gower and Clarke 1994). Another study in the Philippines revealed that they reduced job stress, which in turn enhanced both work–life balance and productivity (Paje et al. 2020). In conclusion, it appears that on the whole compressed workweeks have positive effects on workers, particularly their work–life balance, while enterprises also benefit from the implementation of this working-time arrangement.

3.6. Hours-averaging schemes, including annualized hours

Hours-averaging schemes, including annualized hours, allow for variations in daily and weekly hours of work within specified legal limits, such as maximum daily and weekly hours of work, while requiring that hours of hours either achieve a specified weekly average over the period in which the hours are averaged or remain within a fixed total over the reference period (ILO 2018).¹⁶ This form of working-time

¹⁶ A four-day compressed workweek should not be confused with a four-day workweek. In the former case, the number of work-days is reduced but the total number of hours of work per week remains the same. In the latter case by contrast, both the

arrangement is particularly suited to seasonal work; for example, Volkswagen Autoeuropa, a car manufacturer in Portugal, uses hours-averaging schemes to manage seasonal fluctuations in the market (ILO 2019). Also, hours-averaging schemes may potentially facilitate better matching of workload with the availability of staff; for example, NHS Scotland utilizes annualized hours to ensure that sufficient staff are available during high-demand periods, which has led to lower levels of absenteeism (United Kingdom 2015).

Under fully annualized hours arrangements, wages are typically kept constant and are paid on an average basis throughout the year, providing financial stability to workers (United Kingdom 2015). The averaging of hours of work means that overtime is reduced or eliminated; therefore, compensation is required in the form of an increase in the basic wage (ILO 2019). Normally, a shorter reference period such as one month is more effective than an annualized approach, which risks drastic swings in hours from week to week. Also, employees need to be notified and prepared prior to the implementation of hours-averaging schemes. The most effective examples of such working-time arrangements have been those in which companies developed these arrangements in collaboration with labour unions (Kouzis and Kretsos 2003). Hours-averaging schemes have not been widely implemented and there is no internationally comparable data regarding the incidence of this working-time arrangement.

3.6.1 Effects on work–life balance

Depending on the way in which hours-averaging schemes are designed and implemented, they can potentially pose significant risks to workers' work–life balance. In particular, if income is tied to the actual hours of work in any given week, then workers would face substantial fluctuations of earnings, which may lead to anxiety and financial difficulties. Also, this type of working-time arrangement carries the risk that employees may be required to work longer hours than they desire or on continually fluctuating days, which would have a negative effect on their work–life balance (Unison 2013). As mentioned earlier in this chapter, consistency in the number of hours of work can benefit employees by ensuring stability and the opportunity to plan their personal lives. In addition, employees may have to work more atypical hours (weekends and nights) to reach the required average number hours, as was the case in Spain (Kouzis and Kretsos 2003). Work–life balance may therefore be eroded if hours-averaging schemes lead to hours of work and work schedules that vary greatly from one week to another.

Nevertheless, hours-averaging schemes can have positive effects on workers' work–life balance as well. Under such schemes, employees' salaries are normally pegged to average weekly or monthly hours of work, which ensures that variations in weekly or monthly hours of work do not affect weekly or monthly earnings; this practice provides an economic benefit to workers in the form of greater financial stability, which contributes to work–life balance. According to one expert source in the United Kingdom, annualized hours can enable parents to adapt their work schedules to family demands such as school holidays (Women's Business Council 2020). One study argues that such schemes can enable workers to have more control over their work schedules and thereby achieve a better balance between paid work and personal commitments (Kouzis and Kretsos 2003). The optimal reference period is a maximum of one year, with longer reference periods risking large swings in hours of work, which places pressure on employees' work–life balance. In summary, hours-averaging schemes offer the potential of facilitating work–life balance if they are properly implemented, particularly if this is done in close collaboration with employees; however, poor design and implementation of such working-time arrangements risks eroding work–life balance.

total number of workdays and the total number of hours of work are reduced. An example of a four-day workweek with reduced hours of work is presented in Chapter 6.

3.7. Conclusion

A variety of working-time arrangements currently exist in the global economy. This chapter has documented the prevalence of the most notable arrangements and their known effects on work-life balance, based on the limited data available. Better work-life balance, an important outcome of many of these arrangements, provides significant benefits for both employers and employees. It is therefore important to identify the work-life balance outcomes associated with each working-time arrangement.

- ▶ The classic standard workweek (8 hours per day, five or six days per week) provides stability to workers in planning their lives, yet such fixed schedules are often too inflexible to allow time for family demands as and when needed.
- ▶ Shift work may provide greater schedule flexibility to workers to help them balance work and non-work commitments. However, shift work may require workers to work during atypical hours, which has been linked to significant health risks and family life disruptions.
- ▶ Part-time work (less than 35 hours per week) with predictable work schedules enables workers to have more time for their personal responsibilities and/or leisure, leading to a better balance between paid work and personal life.
- ▶ On-call work, based on highly unpredictable «just-in-time» schedules, severely disrupts work-life balance by making it difficult for workers to organize their personal lives and finances; it has also been shown to have negative effects on workers' health.
- ▶ Flextime (flexible schedules) enables workers to organize their own work schedules based on their individual needs, within established parameters, in order to optimally balance their paid work and personal commitments. It has positive effects on workers' mental health but may reinforce gender inequalities if only women use it. The dramatic increase in flexible working arrangements during the pandemic (especially telework) by both men and women suggests that this may be a less significant concern in the post-pandemic world (although research is needed to confirm this hypothesis).
- ▶ Compressed work weeks provide employees with longer weekends to spend with family and friends and thereby improve work-life balance; there is a debate about their health impacts, but the evidence trends towards positive effects.
- ▶ Finally, hours-averaging schemes with short-to-medium-term reference periods (such as one to four months) may facilitate work-life balance; however, if they are poorly designed and implemented, employees may be left vulnerable to drastic swings in hours of work that disrupt their personal lives.

3.8. References

- Adams, Abi, and Jeremias Prassl. 2018. *Zero-Hours Work in the United Kingdom*. ILO.
- AlphaBeta. 2019. "Flexibility and Fairness: What Matters to Workers in the New Economy".
- Angerer, Peter, and Raluca Petru. 2010. Schichtarbeit in der modernen Industriegesellschaft und gesundheitliche Folgen. *Somnologie-Schlafforschung und Schlafmedizin* 14(2): 88–97.
- Argentina, Ministry of Labour. 2018. *National Survey of Workers on Employment, Labour, Health and Safety Conditions*.
- Australia, ABS. 2019. "Characteristics of Employment, Australia".
- Baltes, Boris B., et al. 1999. "Flexible and Compressed Workweek Schedules: A Meta-Analysis of Their Effects on Work-Related Criteria". *Journal of Applied Psychology* 84(4): 496–513.
- Bambra, Clare, et al. 2008. "A Hard Day's Night? The Effects of Compressed Working Week Interventions on the Health and Work-Life Balance of Shift Workers: A Systematic Review". *Journal of Epidemiology and Community Health* 62(9): 764–777.
- Berg, Janine. 2016. *Income Security in the On-Demand Economy: Findings and Policy Lessons from A Survey of Crowdworkers*. Conditions of Work and Employment Series No. 74. ILO.
- Blachowicz, Ewa, and Mari Jo Letizia. 2006. "The Challenges of Shift Work". *Medsurg Nursing* 15(5): 274–280.
- Bohle, Philip, et al. 2004. "Working Hours, Work-Life Conflict and Health in Precarious and 'Permanent' Employment". *Revista de Saúde Pública* 38: 19–25.
- Brown, Kerry A., et al. 2011. "Labouring for Leisure? Achieving Work-Life Balance through Compressed Working Weeks". *Annals of Leisure Research* 14(1): 43–59.
- Burke, Ronald J. 2003. "Length of Shift, Work Outcomes, and Psychological Well-being of Nursing Staff". *International Journal of Public Administration* 26(14): 1637–1646.
- Byron, Kristin. 2005. "A Meta-Analytic Review of Work-Family Conflict and its Antecedents". *Journal of Vocational Behavior* 67(2): 169–198.
- Campbell, Iain. 2018. *On-Call and Related Forms of Casual Work in New Zealand and Australia*. Conditions of Work and Employment Series No. 102. ILO.
- Campolo, Malu, et al. 1998. Pioneering the 12-Hour Shift in Australia—Implementation and Limitations. *Australian Critical Care* 11(4): 112–115.
- Caruso, Claire C., et al. 2004. *Overtime and Extended Work Shifts: Recent findings on Illness, Injuries, and Health Behaviors*. United States, NIOSH.
- Chartered Institute of Personnel Development. 2013. *Labour Market Outlook 2013*.
- Chile. 2011. *Primera Encuesta Nacional de Condiciones de Empleo, Equidad, Trabajo, Salud y Calidad de Vida de los Trabajadores y Trabajadoras de Chile (2009-2010)*.
- Clark, Sue Campbell. 2000. "Work/Family Border Theory: A New Theory of Work/Life Balance". *Human Relations* 53(6): 747–770.
- Costa, Giovanni, 2010. "Shift Work and Health: Current Problems and Preventive Actions". *Safety and Health at Work* 1(2): 112–123.
- Cunningham, J.Barton. 1981. "Exploring the Impact of a Ten-Hour Compressed Shift Schedule". *Journal of Occupational Behaviour* 2(3): 217–222.
- De Stefano, Valerio. 2016. "The Rise of the 'Just-in-Time Workforce': On-Demand Work, Crowdwork, and Labor Protection in the 'Gig-Economy'". *Comparative Labor Law & Policy Journal* 37 (3): 471–504.
- Eaton, P., and S. Gottselig, S., 1980. "Effects of Longer Hours, Shorter Week for Intensive Care Nurses". *Dimensions in Health Service* 57(8): 25–27.

- Eurofound. 2015. *New Forms of Employment*.
- . 2017. *Sixth European Working Conditions Survey – Overview Report (2017 Update)*.
- . 2018. *Employment and Working Conditions of Selected Types of Platform Work*.
- Ezra, Marni, and Melissa Deckman. 1996. "Balancing Work and Family Responsibilities: Flextime and Child Care in the Federal Government". *Public Administration Review* 56(2): 174–179.
- Fagan, Colette, et al. 2012. *The Influence of Working Time Arrangements on Work–Life Integration or "Balance": A Review of the International Evidence*. ILO.
- Finn, Peter. 1981. "The Effects of Shift Work on the Lives of Employees". *Monthly Labour Review* 104: 31–35.
- Galea, Christopher, Inge Houkes and Angelique De Rijk. 2014. An Insider's Point of View: How a System of Flexible Working Hours Helps Employees to Strike a Proper Balance between Work and Personal Life. *The International Journal of Human Resource Management* 25(8): 1090–1111.
- Golden, Lonnie. 2015. *Irregular Work Scheduling and its Consequences*. Economic Policy Institute Briefing Paper No. 394.
- Haar, Jarrod M. 2007. Exploring the Benefits and Use of Flexitime: Similarities and Differences. *Qualitative Research in Accounting and Management* 4(1): 69–82.
- Halpern, Diane F. 2005. "How Time-Flexible Work Policies can Reduce Stress, Improve Health, and Save Money". *Stress and Health* 21(3): 157–168.
- Han, Wen-Jui. 2005. "Maternal Nonstandard Work Schedules and Child Cognitive Outcomes". *Child Development* 76(1): 137–154.
- Hattery, A.J., 2001. "Tag-Team Parenting: Costs and Benefits of Utilizing Nonoverlapping Shift Work in Families with Young Children". *Families in Society* 82(4): 419–427.
- Harrington, J.M., 2001. "Health Effects of Shift Work and Extended Hours of Work". *Occupational and Environmental Medicine* 58(1): 68–72.
- Hill, Edward Jeffrey, et al. 2010. "Workplace Flexibility, Work Hours, and Work–Life Conflict: Finding an Extra Day or Two". *Journal of Family Psychology* 24(3): 349–358.
- Hsueh, JoAnn. 2006. "Mothers at Work in a 24/7 Economy: Exploring Implications for Family and Child Well-Being". In *Making It Work: Low-Wage Employment, Family Life, and Child Development*, edited by Hirokazu Yoshikawa, Thomas S. Weisner and Edward D. Lowe (Russell Sage Foundation), 97–123.
- Hunt, Abigail, et al. 2019. *Women in the Gig Economy: Paid work, Care and Flexibility in Kenya and South Africa*. ODI.
- Huws, Ursula, et al. 2017. *Work in the European Gig Economy: Research Results from the UK, Sweden, Germany, Austria, the Netherlands, Switzerland and Italy*. FEPS.
- Härmä, Mikko Ilmari, et al. 1998. "Combined Effects of Shift Work and Lifestyle on the Prevalence of Insomnia, Sleep Deprivation and Daytime Sleepiness". *Scandinavian Journal of Work, Environment & Health* 24(4): 300–307.
- Huws, Ursula, Neil H. Spencer and Simon Joyce. 2016. *Crowd Work in Europe: Preliminary Results from a Survey in the United Kingdom, Sweden, Germany, Austria and the Netherlands*. FEPS.
- ILO. 2008. *Report of the Conference, 18th International Conference of Labour Statisticians, ICLS/18/2008/IV/FINAL, 2008*.
- . 2011. *Working time in the 21st Century*. Report for discussion at the Tripartite Meeting of Experts on Working-Time Arrangements. TMEWTA/2011.
- . 2018. *Ensuring Decent Working Time for the Future: General Survey concerning Working-Time Instruments*. ILC/107/III(B).
- . 2019a. *Women in Business and Management. The Business Case for Change*.

- . 2019b. *Guide to Developing Balanced Working Time Arrangements*.
- Jamal, Muhammed, 2004. "Burnout, Stress and Health of Employees on Non-Standard Work Schedules: A Study of Canadian Workers". *Stress and Health* 20(3): 113–119.
- Farrell, Diana, and Fiona Gregg. 2016. *The Online Platform Economy: Has Growth Peaked?* JPMorgan Chase Institute.
- Katz, Lawrence F., and Alan B. Krueger. 2016. *The Rise and Nature of Alternative Work Arrangements in the United States, 1995–2015*. NBER Working Paper 22667.
- Knop, Brian, and Karin L. Brewster. 2016. "Family Flexibility in Response to Economic Conditions: Fathers' Involvement in Child-Care Tasks". *Journal of Marriage and Family* 78(2): 283–292.
- Koekemoer, Eileen, and Caroline Downes. 2011. "Work-Life Balance Policies: Challenges and Benefits Associated with Implementing Flexitime". *SA Journal of Human Resource Management* 9(1): 1–13.
- Koller, M., M. Kundi and R. Cervinka . 1978. "Field Studies of Shift Work at an Austrian Oil Refinery. I: Health and Psychosocial Wellbeing of Workers Who Drop Out of Shiftwork". *Ergonomics* 21(10): 835–847.
- Kouzis, Giannis, and Lefteris Kretsos. 2003. *Annualised Hours in Europe*. Eurofound.
- Kivimäki, Mika, et al. 2001. "Does Shift Work Lead to Poorer Health Habits? A Comparison between Women Who Had Always Done Shift Work with Those Who Had Never Done Shift Work". *Work & Stress* 15(1): 3–13.
- LaValle, Ivana, et al. 2002. *Happy Families? Atypical Work and Its Influence on Family Life*. Policy Press.
- Lehdonvirta, Vili. 2018. "Flexibility in the Gig Economy: Managing Time on Three Online Piecework Platforms". *New Technology, Work and Employment* 33(1): 13–29. Maestas, Nicole, et al. 2015. *Working Conditions in the United States: Results of the 2015 American Working Conditions Survey*. RAND Corporation.
- MacEwen, Karyl E., and Julian Barling. 1994. "Daily Consequences of Work Interference with Family and Family Interference with Work". *Work and Stress* 8(3): 244–254.
- Marucci-Wellman, Helen R., David A. Lombardi and Joanna L. Willetts. 2016. "Working Multiple Jobs Over a Day Or a Week: Short-Term Effects on Sleep Duration". *Chronobiology International* 33(6): 630–649.
- Mas, Alexandre, and Amanda Pallais. 2017. "Valuing Alternative Work Arrangements". *American Economic Review* 107(12): 3722–3759.
- McCrate, Elaine, 2018. *Unstable and On-Call Work Schedules in the United States and Canada*. Conditions of Work and Employment Series No. 99. ILO.
- Mesmer-Magnus, Jessica R., and Chockalingam Viswesvaran. 2006. "How Family-Friendly Work Environments Affect Work-Family Conflict: A Meta-Analytic Examination". *Journal of Labor Research* 27(4): 555–574.
- New Zealand, Stats NZ. 2018. "Labour Market Statistics (Working Life): December 2018 Quarter".
- NORC at the University of Chicago. 2018. *The General Social Survey*.
- Paje, Roma C., et al. "The Impact of Compressed Workweek Arrangements on Job Stress, Work-Life Balance, and Work Productivity of Rank-and-File Employees from Different Industries in Metro Manila", *Journal of Physics Conference Series* 1529(3).
- Pennycook, Matthew, Giselle Cory and Vidya Alakeson. 2013. *A Matter of Time: The Rise of Zero-Hours Contracts*. June 2013. Resolution Foundation.
- Pierce, Jon L. and Randall B. Dunham. 1992. "The 12-Hour Workday: A 48-Hour, Eight-Day Week". *Academy of Management Journal* 35(5): 1086–1098.
- Presser, Harriet B. 2000. "Nonstandard Work Schedules and Marital Instability". *Journal of Marriage and Family* 62(1): 93–110.

- Republic of Korea, Korea Social Science Data Archive. 2017. *Working Conditions Survey*.
- Ronen, Simcha, and Sophia B. Primps. 1981. "The Compressed Work Week as Organizational Change: Behavioral and Attitudinal Outcomes". *Academy of Management Review* 6(1): 61–74.
- Rosenblat, Alex, and Luke Stark,. 2016. "Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers". *International Journal of Communication*: 3758–3784
- Ruegg, Richard L. 1987. "Reported Anxiety on Work Shifts for Coronary Care Nurses". PhD thesis, Ball State University.
- Saltzstein, Alan L., Yuan Ting and Grace Hall Saltzstein. 2001. "Work-Family Balance and Job Satisfaction: The Impact of Family-Friendly Policies on Attitudes of Federal Government Employees". *Public Administration Review* 61(4): 452–467.
- Scott, Allene J., 2000. "Shift Work and Health". *Primary Care* 27(4): 1057–1079.
- Scott, A. J., and J. LaDou. 1990. "Shiftwork: Effects on Sleep and Health with Recommendations for Medical Surveillance and Screening". *Occupational Medicine* 5(2): 273–299.
- Shevchuk, Andrey, Denis Strebkov and Shannon N. Davis. 2019. "The Autonomy Paradox: How Night Work Undermines Subjective Well-Being of Internet-Based Freelancers". *ILR Review* 72(1): 75–100.
- Shields, Margot. 2002. "Shift Work and Health". *Health Rep* 13(4): 11–33.
- Singh, Parbudyai, Dale Finn and Laurel Goulet. 2004. "Gender and Job Attitudes: A Re-Examination and Extension". *Women in Management Review* 19(7): 345–355.
- Sparks, Kate, et al. 1997. "The Effects of Hours of Work on Health: A Meta-Analytic Review". *Journal of Occupational and Organizational Psychology* 70(4): 391–408.
- Stone, Patricia W., et al. 2006. "Comparison of Nurse, System and Quality Patient Care Outcomes in 8-hour and 12-hour Shifts". *Medical Care* 44(12): 1099–1106.
- Thomas, Linda Thiede, and Daniel C. Ganster. 1995. "Impact of Family-Supportive Work Variables on Work–Family Conflict and Strain: A Control Perspective". *Journal of Applied Psychology* 80(1): 6–15.
- Totterdell, Peter, and Lawrence Smith. 1992. "Ten-Hour Days and Eight-Hour Nights: Can the Ottawa Shift System Reduce the Problems of Shiftwork?". *Work & Stress* 6(2): 139–152.
- Tucker, Philip, et al. 1998. "The Impact of Early and Late Shift Changeovers on Sleep, Health, and Well-Being in 8-and 12-hour Shift Systems". *Journal of Occupational Health Psychology* 3(3): 265–275.
- United Kingdom, NHS Scotland. 2015. "Supporting Work–Life Balance: NHS Scotland PIN Policy".
- UNISON. 2013. "A Guide to Negotiating on Shiftwork".
- Van Rijswijk, Karen, et al. 2004. "The Relationships Among Part-Time Work, Work–Family Interference, and Well-Being". *Journal of Occupational Health Psychology* 9(4): 286–295.
- Vogel, Matthias, et al. 2012. "The Effects of Shift Work on Physical and Mental Health". *Journal of Neural Transmission* 119(10): 1121–1132.
- Walker, J . 1985. "Social Problems of Shiftwork". In *Hours of Work: Temporal Factors in Work Scheduling*, edited by Simon Folkard and Timothy H. Monk (Wiley), 221–225.
- Williams Brenda Craddock. 1992. "Implementing 12 Hour Rotating Shifts: The Effect on Employee Attitudes". MA thesis, University of Houston-Clear Lake.
- Williamson, Ann M., C.G.I. Gower and B.C. Clarke. 1994. "Changing the Hours of Shiftwork: A Comparison of 8-and 12-hour Shift Rosters in a Group of Computer Operators". *Ergonomics* 37(2): 287–298.
- Women's Business Council. 2020. "Annualised Hours".
- Wood, Alan J, B. Burchell and A. Coutts. 2016. *From Zero Joy to Zero Stress: Making Flexible Scheduling Work*. Cambridge University Press



4.

4. Working-time matches and mismatches between workers' preferred and actual hours of work

The analysis of working-time matches and mismatches provides another way to explore the balance between paid work and personal life. Working-time mismatches can be defined as the incongruence between workers' actual hours of work (see Ch. 2) and their preferred hours of work. Mismatches include both time-related underemployment (see also Ch. 2) and overemployment, which is a situation in which a worker would prefer to reduce their actual hours of work, with a corresponding decrease in income.

A unique element of this chapter is that it analyses both overemployment and underemployment in a range of countries, and then develops an overall mismatch rate by combining the two. While this is not entirely new, it is rare to see both underemployment and overemployment analysed in the same study. Also, due to the variation in definitions of working-time mismatches, two separate alternative measures for both phenomena have been developed. While there are differences in the outcomes using each measure, there are some clear patterns across the findings, most notably that overemployment appears to be more pervasive than underemployment when using a more objective measure, whereas underemployment appears more pervasive when using a more subjective measure. This chapter compares individual country mismatch rates, as well as differences based on region, income level, employment status, gender and occupational skill level. A work-life balance indicator is also used to identify which groups of workers are more or less content with the balance between their work and non-work time, as well as whether overemployment or underemployment is a relatively greater contributor to work-life conflict.

This chapter is organized as follows. First, the data sources and measures are explained. Second, the findings of the objective and the subjective measures are presented. Third, the findings specific to differences in gender and occupational skill are presented, followed by the data from the work-life indicator. Finally, the impacts of working-time mismatches on reported work-life balance are presented. The chapter concludes with a brief analysis of the implications of the findings for employers and managers, who may benefit from trying to better match workers' actual hours of work – although these may be outside their direct control due to consumer, customer or client demands – with their preferred hours of work in order to facilitate a better work-life balance.

4.1. Data and measures

This chapter presents a multi-country comparative analysis – one of the first of its kind – of the relationship between working hour mismatches and work–life balance. The analysis makes use of the results of the ISSP Work Orientations IV module of 2015, a survey conducted across 37 different countries or areas, with a sample size of 15,544 respondents.¹⁷

This module is attached to countries' biannual General Social Survey, which contains a wealth of demographic and job characteristics of employed respondents. Working-time mismatches take the form of either underemployment (where the actual hours of work are fewer than those desired by a worker) or overemployment (where the actual hours of work exceed those desired by a worker).

While the general definitions of underemployment and overemployment are clear, the process of translating these notions into measurable concepts is more complex. As a consequence of different methodological approaches to measuring time-related underemployment and overemployment at the national and international levels, two different measures have been devised. The “objective measure” refers to a worker's preference for a specific change in hours of work; the “subjective measure” refers to a more continuous change in hours of work. The objective measure of working-time mismatches involves the expressed preference for a wholesale change from a part-time to a full-time job or vice versa. The objective rates of underemployment and overemployment are computed using three alternative measures of where to draw the line between part-time and full-time hours of work per week: (a) the ILO definition; (b) the ISSP survey definition; and (c) the national standard workweek of a given country. All three definitions are deployed to provide a contrast among the different commonly accepted measures of full-time work. This subjective measure reflects the more general desire for an incremental adjustment, upward or downward, in a worker's specific hours of work. The subjective measure of mismatch includes a preference to move incrementally within a part-time job to either longer or shorter part-time hours of work. Because of the wording of the question in the ISSP survey, any upward or downward adjustment in hours of work implies a corresponding change in income. Accordingly, both an objective and a subjective measure are utilized, as valid alternative ways to capture if there is a mismatch between a worker's actual hours of work per week and their preferred hours of work per week, in order to ascertain the existence and extent of any hours of work mismatches in a given country.

4.2. Working-time mismatches around the globe: the recent “state of play”

The findings of the ISSP data analysis are presented in this section. Sections 4.2.1 and 4.2.2 below review the country, region, income and employee/non-employee trends in terms of both the objective and the subjective measures. Subsequently, differences in working-time mismatches based on gender, occupational skill and the work–life balance indicator are analysed using both measures in sections 4.2.3 to 4.2.5. The data shows that high-income countries or areas tend to have slightly higher rates of overemployment and lower rates of underemployment, except for the United States and other anglophone countries. Also, work–life imbalances are strongly correlated with the incidence and rate of overemployment in most regions, countries and income levels. In terms of gender, the two measures yield different results, with the objective measure suggesting that women are more frequently overemployed or underemployed, whereas the subjective measure suggests that men experience higher underemployment and that overemployment is roughly equal for both women and men. In terms of occupational skills, as the level of skill increases overemployment is higher and underemployment is lower. Finally, about one fifth of workers globally experience frequent work–life conflict, with overemployed workers much more likely to have such a conflict.

¹⁷ This special survey is conducted every ten years; for additional information, see <https://www.gesis.org/en/issp/modules/issp-modules-by-topic/work-orientations/2015>.

4.2.1 Objective measures: underemployment and overemployment

The objective measure finds that on average, one quarter of the labour force in the sample countries has some type of working-time mismatch. Table 3 presents the overemployment, underemployment and overall mismatch rates across all 37 ISSP survey countries or areas. Data measured under both national and ILO definitions are presented, along with a third column that shows the average of the two definitions. The overall objectively measured mismatch rate for both definitions is similar and converges at just over 27 per cent. Using the ILO definitions of part-time and full-time work yields a global rate of objective underemployment of 9 per cent and an objective overemployment rate of just under 19 per cent. The corresponding rates using national standard workweeks and part-time work definitions yields a slightly lower underemployment rate of 7.3 per cent and a slightly higher overemployment rate of 19.8 per cent. Splitting the difference, the two right-hand columns suggests that we may safely say that almost 9 per cent of the globe would like to go from part-time to full-time hours of work, while another 19 per cent has a preference for going in the reverse direction, from full-time to part-time hours of work, at least as an "ideal" amount of work. Therefore, the objective measure of mismatches identifies nearly twice as much overemployment as underemployment in the ISSP sample countries or areas.

► **Table 3. Objective mismatch rates based on national and ILO definitions of part-time/full-time hours of work in all 37 ISSP survey countries or areas**

Country/area	(National definition)			(ILO definition)			Average	
	Total	Underemployment	Overemployment	Total	Underemployment	Overemployment	Underemployment rate	Overemployment rate
Australia	26.3	9.3	17.0	29.1	13.0	16.1	11.1	16.6
Austria	14.2	2.2	12	16.8	7.7	9.1	5.0	10.6
Belgium	32.0	10.9	21.1	31.0	6.0	25.0	8.5	23.0
Chile	40.9	3.7	7	41.3	5.9	35.4	4.8	36.3
China	20.6	10.9	9.7	24.8	14.9	9.8	12.9	9.8
Taiwan (China)	35.6	3.9	31.8	35.5	4.5	31.0	4.2	31.4
Croatia	11.0	2.6	8.5	13.2	4.8	8.4	3.7	8.4
Czechia	22.6	3.0	19.6	20.5	2.9	17.6	3.0	18.6
Denmark	30.8	3.3	27.6	33.6	11.6	22.0	7.4	24.8
Estonia	29.9	7.5	22.4	27.9	4.5	23.4	6.0	22.9
Finland	31.7	8.3	23.4	30.2	6.4	23.8	7.3	23.6
France	27.8	8.5	19.3	27.1	7.1	20.0	7.8	19.7
Georgia	33.1	25.6	7.5	30.3	22.9	7.4	24.3	7.4
Germany	27.3	5.7	21.6	28.0	9.1		7.4	20.3
Hungary	14.2	3.4	10.8	13.2	2.0	11.2	2.7	11.0
Iceland	35.5	3.2	32.3	32.8	4.1	28.7	3.6	30.5

► Table 3. Objective mismatch rates based on national and ILO definitions of part-time/full-time hours of work¹⁸ in all 37 ISSP survey countries or areas (continued)

Country/area	(National definition)			(ILO definition)			Average	
	Total	Underemployment	Overemployment	Total	Underemployment	Overemployment	Underemployment rate	Overemployment rate
India	26.3	9.8	16.5	32.5	18.1	14.4	14.0	15.4
Israel	32.4	8.8	23.7	33.0	10.3	22.7	9.5	23.2
Japan	24.6	13.0	11.6	22.9	11.3	11.6	12.2	11.6
Latvia	30.4	8.2	22.1	30.1	6.2	23.9	7.2	23.0
Lithuania	18.8	8.4	10.4	17.1	6.4	10.7	7.4	10.6
Mexico	41.7	7.4	34.3	46.1		33.3	10.1	33.8
New Zealand	21.6	4.5	17.1	23.5	10.2	13.3	7.3	15.2
Norway	22.5	6.9		20.3	7.8	12.6	7.3	14.1
Philippines	43.2	20.4	22.8	40.3	18.7	21.6	19.5	22.2
Poland	17.4	6.1	11.2	17.6	5.4	12.2	5.8	11.7
Russian Federation	24.1	0.7	23.4	27.7	6.3	21.4	3.5	22.4
Slovakia	16.7	4.6	12.1	15.8	3.7	12.1	4.2	12.1
Slovenia	20.3	1.9	18.4	20.8	3.2	17.5	2.6	18.0
South Africa	18.6	9.2	9.4	24.7	15.1	9.6	12.1	9.5
Spain	22.7	8.4	14.3	26.1	13.9	12.2	11.1	13.3
Suriname	26.0	13.3		28.3	16.9	11.4	15.1	12.1
Sweden	36.8	7.3	29.5	36.8	6.4	30.3	6.9	29.9
Switzerland	35.8	7.9	27.9	38.4	6.7	31.7	7.3	29.8
United Kingdom	23.5	4.6	18.9	26.1	11.0	15.1	7.8	17.0
United States	23.1	7.8	15.2	26.5	13.5	13.0	10.7	14.1
Venezuela (Bolivarian Rep. of)	40.9	7.3	33.6	37.2	12.8	24.5	10.0	29.0
Average, all 37 ISSP survey countries/areas	27.2	7.3	19.8	27.7	9.0	18.7	8.2	19.3
Correlation coefficient								-0.262
N = 15, 544								

18 A third definition distinguishes part-time versus full-time hours of work based on ISSP survey question 9, which allowed each country to pick their own definition (such as 30, 32 or 35 hours of work) and these estimates almost always fall between the other two definitions. They are available upon request.

In terms of individual countries or areas, high or low mismatch rates are driven by various factors. The highest overall mismatch rates were found in the Philippines, Mexico, Chile and the Bolivarian Republic of Venezuela, with somewhat high rates in Sweden, Switzerland and Taiwan (China). However, these rates are elevated for different reasons. The main driver of higher mismatch rates in the Philippines is the high level of underemployment. By contrast, in Mexico and the Bolivarian Republic of Venezuela the main driver is overemployment. This is also the case for Chile, Taiwan (China), Switzerland and Sweden. For countries with low overall mismatch rates, the drivers are different. For Austria and Croatia, it is their lower underemployment, but for Hungary it is their lower rate of overemployment. In order to better understand these outcomes, there is a need to analyse country groups on a regional basis to ascertain whether there are regional drivers of working-time mismatches.

For the regional analysis presented in tables 4 and 5, countries are grouped into two clusters. Cluster I divides countries or areas into seven regional groupings. Cluster II retains five of those groupings but combines the Africa and North America groupings into a single grouping of anglophone countries: the United States, the United Kingdom, Australia, New Zealand and South Africa. This is because the ISSP survey covers 37 selected countries or areas, which limits the generalizability of overall regional patterns. For example, North America consists only of the United States and South Africa is the only African country surveyed. Accordingly, for cluster II of this regional analysis, the anglophone country category consists of five countries; Latin America consists of four countries; Asia and the Pacific consists of five countries or areas; Northern Europe consists of eight countries; Western, Central and Southern Europe consists of eight countries; and Eastern Europe and Central Asia consists of seven countries. The countries or areas surveyed are also analysed based on their level of income and stage of economic development, utilizing the World Bank's development categorization (for further information, see appendix to this chapter, table A.1). Regarding their level of development, countries or areas are distinguished as either "high-income" or "middle-income" countries or areas. Unfortunately, no "low-income" countries or areas participated in the ISSP survey. Once again, this limited sample scope implies a lack of generalizability. By income level/ stage of economic development, nine countries or areas defined (by the ILO) as lower-to-middle-income or middle-income countries were grouped in the "middle-income" category. The remaining 28 countries or areas were grouped in the "high-income" category.

► Table 4. Objective mismatch rates based on national and ILO definitions, by regional clusters

Cluster I	Objective mismatch: national definition			(ILO definition)			Average	
	Total	Underemployment	Overemployment	Total	Underemployment	Overemployment	Underemployment	Overemployment
Africa	18.6	9.2	9.4	24.7	15.1	9.6	12.1	9.5
Latin America	37.6	7.8	29.8	38.2	11.8	26.4	9.8	28.1
North America	23.1	7.8	15.2	26.5	13.5	13.0	10.7	14.1
Asia and the Pacific	29.2	9.8	19.4	30.3	11.6	18.7	10.7	19.0
Eastern Europe and Central Asia	22.5	6.5	16.0	22.3	6.9	15.4	6.7	15.7
Northern Europe	28.7	6.2		28.1	7.4	20.7	6.8	21.6
Southern and Western Europe	25.5	6.7	18.8	26.5	7.7	18.8	7.2	18.8
Cluster II								
Anglophone countries	22.8	7.3	15.5	26.2	12.8	13.4	10.0	14.5
United States countries	23.1	7.8	15.2	26.5	13.5	13.0	10.7	14.1
Non-United States	22.7	7.1	15.5	26.2	12.5	13.6	9.8	14.6
Latin America	37.6	7.8	29.8	38.2	11.8	26.4	9.8	28.1
Asia and the Pacific	30.4	10.4	20.0	31.1	11.5	19.6	10.9	19.8
Eastern Europe and Central Asia	22.5	6.5		22.3	6.9	15.4	6.7	15.7
Northern Europe	29.6	6.5	23.1	28.5	6.7	21.8	6.6	22.4
Southern and Western Europe	25.5	6.7	18.8	26.5	7.7	18.8	7.2	18.8
Correlation of measures							0.764	0.980

Source: ISSP 2015.

Table 4 shows that Latin America clearly features the lowest matching rates between workers' preferred hours of work and their actual hours of work – more than 37 per cent of them are mismatched. Asian and Northern/Western European countries or areas, at a matching rate of 30 per cent, are elevated slightly above the global average matching rate of 27 per cent, while the Eastern European/Central Asian and anglophone countries or areas, including the United States, are slightly below the global average matching rate, at 23 per cent. Latin America owes its higher mismatch rate mainly to the greater proportion of workers who wish to move from full-time to part-time hours of work, whereas Asia's higher mismatch rate derives from a higher level of underemployment. The lower mismatch rate in the anglophone and Eastern European/Central Asian countries or areas stems from the much lower proportion of workers with a preference for going from full-time to part-time hours of work. However, there appears to be relatively higher underemployment rates in Asia, the United States and Latin American countries or areas, based on the averages between the alternative definitions used. Also, table 5 shows the ratios of underemployment to overemployment, which indicate that workers in anglophone countries, especially the United States and South Africa, are less willing to reduce their hours of work to part-time levels. In contrast, underemployment is a considerably less significant problem across Europe, especially in Northern Europe, whose workers already have shorter average hours of work and a relatively stronger preference to work even shorter workweeks. Therefore, underemployment is a significant issue in Asia but not in Europe, whereas overemployment is a significant issue in Latin America and the anglophone countries.

► **Table 5. Ratio of underemployment to overemployment based on national and ILO definitions, by regional clusters**

Cluster I	National	ILO
Africa	0.97	1.56
Latin America	0.26	0.45
North America	0.51	1.04
Asia and the Pacific	0.51	0.62
Eastern Europe and Central Asia	0.40	0.45
Northern Europe	0.28	0.36
Southern and Western Europe	0.36	0.41
Cluster II		
Anglophone countries	0.47	0.95
United States	0.51	1.04
Non-United States	0.46	0.92
Latin America	0.26	0.45
Asia	0.52	0.59
Eastern Europe and Central Asia	0.40	0.45
Northern Europe	0.28	0.31
Southern and Western Europe	0.36	0.41

Analysing countries or areas based on their level of economic development reveals that overemployment is more strongly associated with high-income countries and time-related underemployment with middle-income countries. A clear inverse relationship exists: the lower the income level, the higher are both alternative measures of time-related underemployment (see table 6). Similarly, the lower the income, the lower the average rates of overemployment, whereas high-income countries or areas have higher rates of overemployment than lower-income countries or areas (although only negligibly higher than the upper middle-income countries or areas). Upper-middle-income countries or areas lie somewhere in-between, although arguably closer to the working-time preferences of high-income countries or areas. Indeed, the ratios of underemployment to overemployment rates (see table 6, right-hand columns) get progressively smaller as aggregate country-income levels increase. The considerably higher rates of underemployment and noticeably lower rates of overemployment in the middle-income country group are to be expected. Moving up the income scale, we observe somewhat more overemployment and less underemployment, at least in the form of part-timers wanting full-time work. Interestingly, total mismatch rates appear to be somewhat lower as incomes get higher in a country or area. Therefore, underemployment is a more prominent trend in middle-income countries, while overemployment is slightly more prevalent in high-income countries.

► **Table 6. Objective mismatch rates based on national and ILO definitions, by country-income level**

	Objective mismatch: national definition			Objective mismatch (ILO definition)			Average measure		Ratios of underemployment to overemployment rates	
	Mismatch: total	Mismatch: underemployment	Mismatch: overemployment	Mismatch: total	Underemployment	Mismatch: underemployment	Underemployment	Overemployment	National	ILO
High-income countries/ areas	18.6	6.4	20.1	26.8	7.5	19.3	7.0	19.7	0.32	0.39
Upper-middle-income countries/ areas	37.6	7.2	20.6	30.2	12.2	18.0	9.7	19.3	0.35	0.68
Lower-middle-income countries/ areas	23.1	17.5	15.3	33.2	19.0	14.2	18.3	14.7	1.14	1.34

Source: ISSP, 2015.

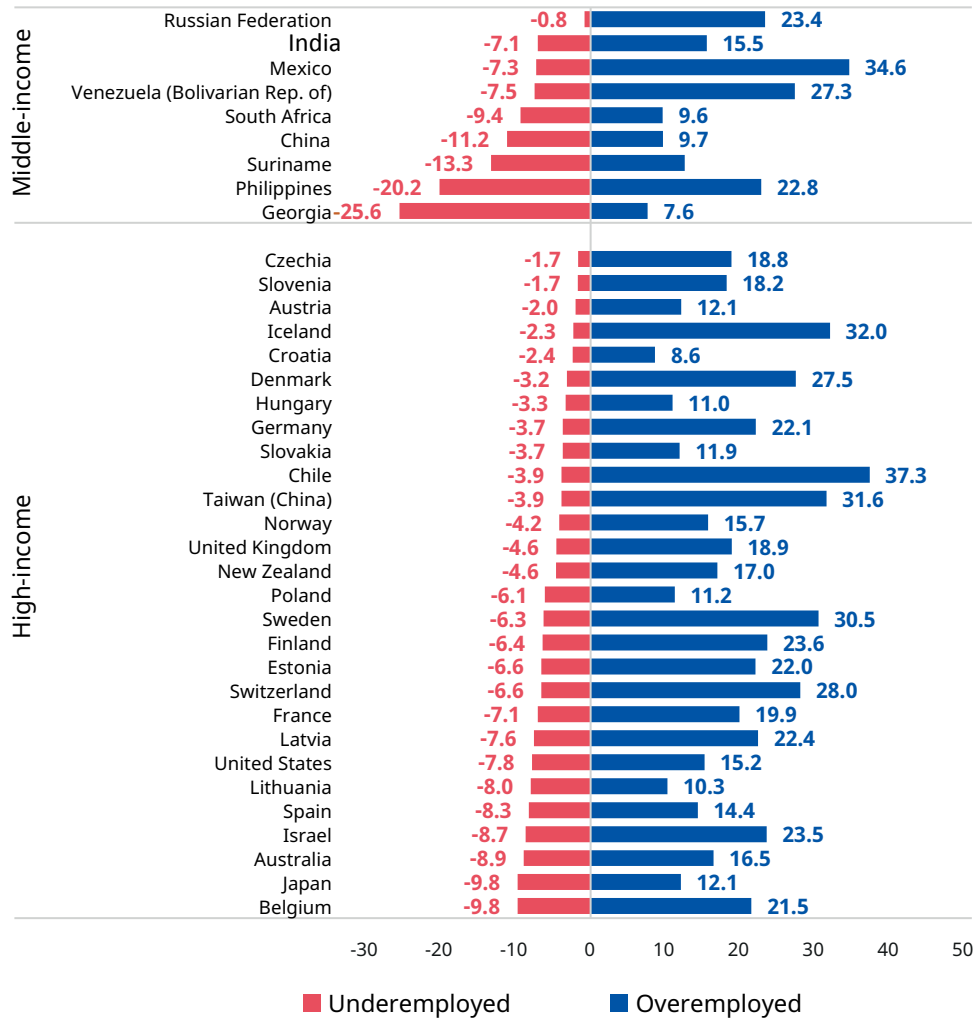
The objective measure facilitates the comparison of working-time mismatches of both employees and non-employees in the sample countries or areas. Figure 34 shows the ranking of underemployment by country or area, suggesting that some countries or areas do better at providing jobs that match workers' hours-of-work preferences than others. It also highlights the fact that underemployment tends to be lower in high-income countries (as well as the Russian Federation).

Figures 35a and 35b divide the workforce into employees – the predominant form of workers in most countries or areas – and non-employees (such as self-employed workers and independent contract

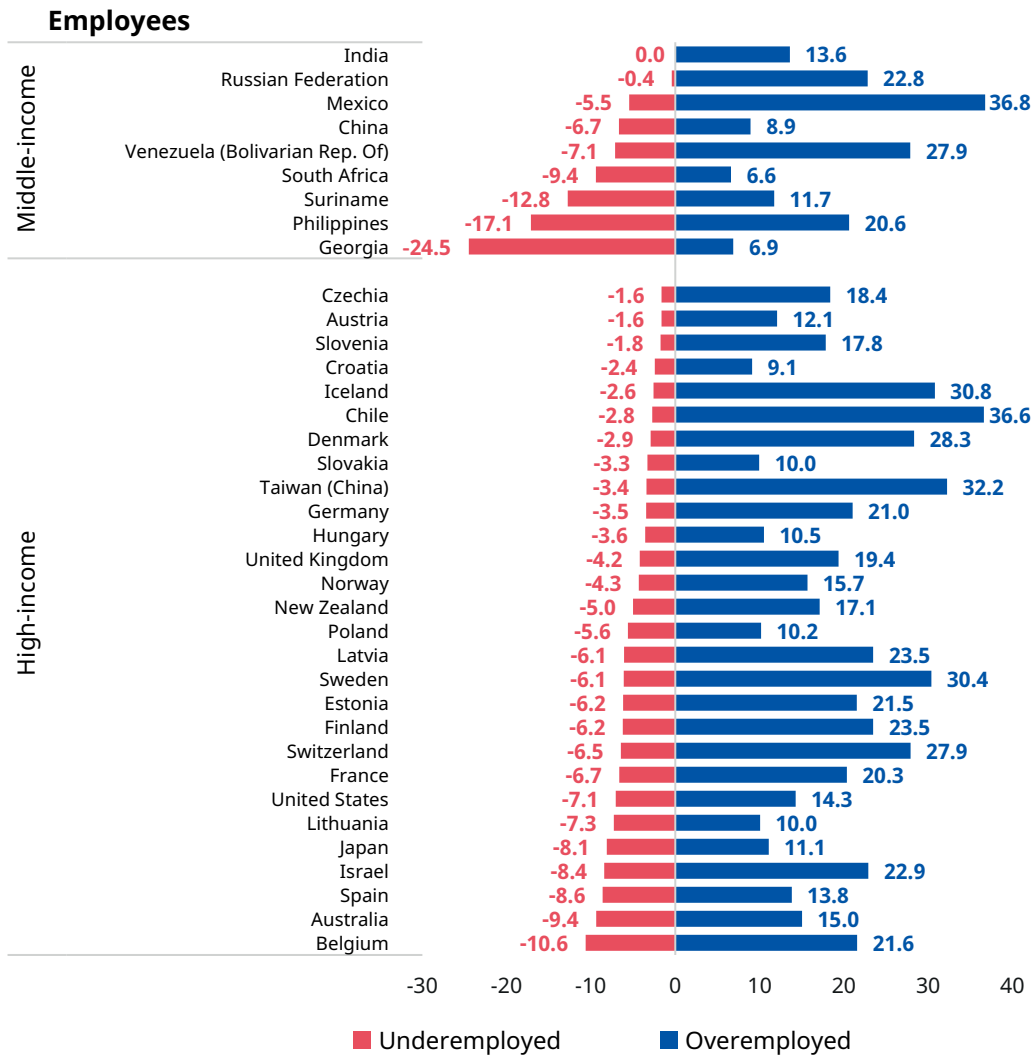
workers). One clear result is that in middle-income countries or areas, underemployment tends to be higher among non-employees than employees on a payroll. This is the case in about half of the high-income countries or areas as well. Figures 35a and 35b show some difference in mismatch rates between employees and those in some types of non-employee status. First, self-employed workers report a higher incidence of underemployment than employees on a payroll. This may seem counterintuitive, given that self-employed workers are usually presumed to be less constrained than employees in how much time they may allocate to work, so that in theory they can work as many hours as they wish. However, the reason is partly revealed by the differences between the high-income and the lower-to-middle-income countries or areas in the ISSP survey – underemployment rates in the latter are at least twice the rate of those in the former. Also, in the relatively lower-income grouping, the underemployment rates for non-employees are twice as high as those of employees.

That non-employees are often somewhat more likely to express feelings of underemployment than employees likely reflects that there is a larger cadre of workers who are non-employees in recently emerging economies. Therefore, self-employment in those countries may be more of a default option than a preference for workers who cannot find paid employment, particularly in countries or areas, labour markets and time periods in which there is a preponderance of more informal work arrangements (Bonnet 2015). While not intuitive, employees actually do have a greater degree of control over their number of hours of work and therefore have greater stability than non-employees in this regard (Lyness et al. 2012; Golden and Kim 2017; McCrate et al. 2019). Many “self-employed workers” are actually “on-demand” workers, independent contractors, casual or informal workers, who are more likely than employees to go through periods of the year when they are constrained by a lack of demand for their services and therefore more likely to be in a state of wanting more income (Abraham and Houseman 2022). However, the sample sizes of non-employees are considerably smaller than those for employees, so not too much stock should be put in reflecting any true, stark differences between the two groups. Nonetheless, it is clear that “self-employment” is not necessarily a solution to resolving work–life imbalances and indeed might exacerbate them – particularly in the direction of a chronic need for more income – at the expense of maintaining adequate non-work time. Therefore overemployment rates, in contrast, differ less between employees and non-employees, although in high-income economies there is a relatively greater expression of a preference for fewer hours of work.

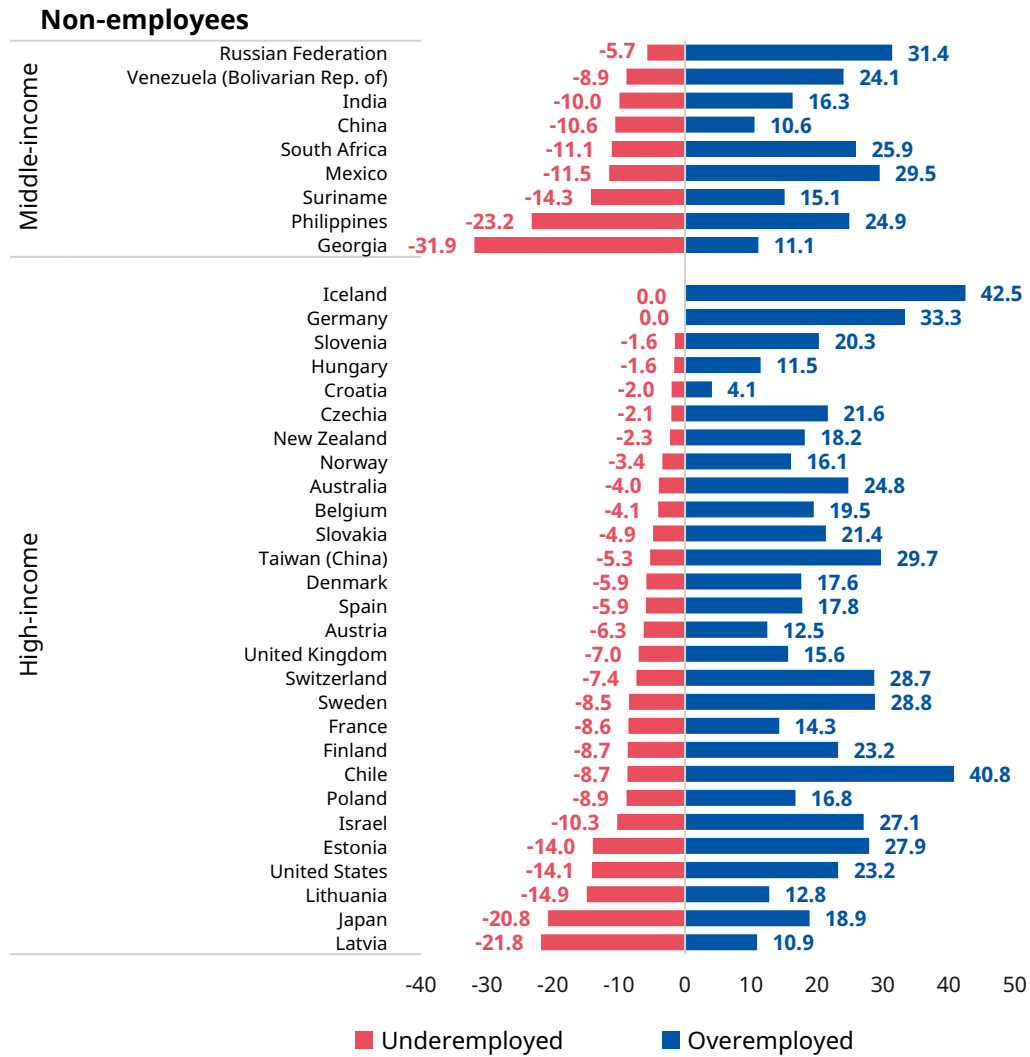
► Figure 34. Countries or areas ranked by underemployment rates, among employees and non-employees, in high- and middle-income groupings, using objective measures



► Figure 35a. Countries or areas ranked by underemployment rates, among employees, in high- and middle-income groupings, using objective measures



► Figure 35b. Countries or areas ranked by underemployment rates, among non-employees, in high- and middle-income groupings, using objective measures



4.2.2 Subjective measures: underemployment and overemployment

The subjective measure reflects a preference for the same, more or fewer hours and is presented in table 7. When the preference is explicitly framed with an associated income adjustment, underemployment tends to be higher and overemployment lower, relative to the results from the more discrete, objective measure of switching between full-time and part-time hours of work. When measured by the question of wanting to work more hours for more income, rates of underemployment are generally far higher in all countries or areas. Countries or areas with higher time-related underemployment include South Africa, Georgia, Mexico and Lithuania, at more than 60 per cent, and the Russian Federation and Suriname, followed by India and Croatia, at more than 50 per cent; workers in those countries seek more hours to increase their earnings.

The total subjective working-time mismatch rates are highest in the following countries: Mexico, South Africa, Georgia, Philippines, the Russian Federation, Suriname and Lithuania. They are also slightly elevated in India, Croatia and Slovakia, where the mismatch rate is still more than 50 per cent of the workforce. Countries or areas with higher overemployment include Sweden and Taiwan (China), followed by Japan, the Philippines, Switzerland, Georgia and Germany. Together, these findings suggest that overemployment is higher in Scandinavian and some Western European economies, where workers generally prefer shorter hours, and in some of the developed and developing economies that have relatively long workweeks, particularly Eastern Asia. However, in the majority of countries or areas with high mismatch rates, such rates are attributable to their relatively higher underemployment. Therefore, high overall working-time mismatch rates are driven more by underemployment than by overemployment.

Countries or areas with lower overall rates of mismatch have some of the lowest rates of underemployment, including Germany, Sweden, Switzerland, Norway and Finland. These countries demonstrate that the highest levels of overemployment are not associated with the overall highest mismatch rates, suggesting that these countries or areas' labour markets are relatively less plagued by subjective underemployment. Also, the strongest relative preferences for more money (versus time) are apparent in the lower-to-middle-income and emerging economies, especially in South Africa, Mexico, Suriname, India and the Philippines, as well as in the former communist countries or areas, particularly Georgia, Lithuania, the Russian Federation, Croatia and Slovakia, and to some extent in Poland, Estonia and Hungary as well. However, subjective underemployment is also notably above average in France and to some extent in the United States. In contrast to the case with the objective measure, rates of overemployment are quite clearly lower in countries or areas in which underemployment is high, and vice versa. Unsurprisingly, a significant negative correlation coefficient of more than -0.70 exists, suggesting that there is considerable substitutability – where underemployment is high, overemployment is low; while where there is more overemployment, there is less underemployment. There is considerable consistency with prior findings using the objective measure – although the levels are different, some of the same countries or areas are found to produce worse or better matches between actual and preferred hours of work. The objective measure tends to capture more effectively the presence of overemployment, while the subjective measure captures more effectively the presence of underemployment. Therefore, the attempt to measure the perceived imbalance between work time and non-work time may be somewhat sensitive to the framing of the question, which may justify measuring that imbalance in different ways.

► Table 7. Subjective mismatch ratios in all 37 ISSP survey countries or areas (based on question 11)

	Total subjective mismatch	Subjective mismatch (underemployed)	Subjective mismatch (overemployed)
Australia	32.9	25.0	7.8
Austria	31.3	25.8	5.5
Belgium	30.0	23.7	6.4
Chile	45.3	40.0	5.4
China	47.2	41.5	5.7
Taiwan (China)	43.8	29.8	14.0
Croatia	56.1	53.5	2.6
Czechia	38.2	33.2	4.9
Denmark	27.1	18.2	8.9
Estonia	45.9	43.9	2.0
Finland	26.8	17.5	9.3
France	49.8	45.8	4.0
Georgia	66.6	65.3	1.3
Germany	32.5	22.8	9.7
Hungary	42.1	40.0	2.1
Iceland	36.6	30.7	5.9
India	57.0	54.3	2.7
Israel	43.7	36.1	7.7
Japan	43.3	32.7	10.6
Latvia	46.8	42.2	4.6
Lithuania	61.9	60.2	1.7
Mexico	69.1	60.8	8.3
New Zealand	35.3	28.5	6.8
Norway	23.8	15.7	8.2
Philippines	60.8	50.5	10.3
Poland	46.5	44.9	1.5

► **Table 7. Subjective mismatch ratios in all 37 ISSP survey countries or areas (based on question 11) (continued)**

	Total subjective mismatch	Subjective mismatch (underemployed)	Subjective mismatch (overemployed)
Russian Federation	60.7	59.0	1.8
Slovakia	51.4	49.9	1.4
Slovenia	36.2	30.4	5.8
South Africa	68.2	66.3	1.8
Spain	38.4	29.5	8.8
Suriname	62.2	59.7	2.4
Sweden	30.4	14.7	15.7
Switzerland	27.9	16.5	11.4
United Kingdom	37.5	28.5	9.0
United States	42.2	38.0	4.2
Total ISSP survey countries or areas	43.1	36.6	6.5
Correlation coefficient			-0.705

Question 11 of the ISSP Work Orientations IV module, under the section on work-life balance, asks. Think of the number of hours you work, and the money you earn in your main job, including any regular overtime.

If you had only one of these three choices, which of the following (only ONE) would you prefer?

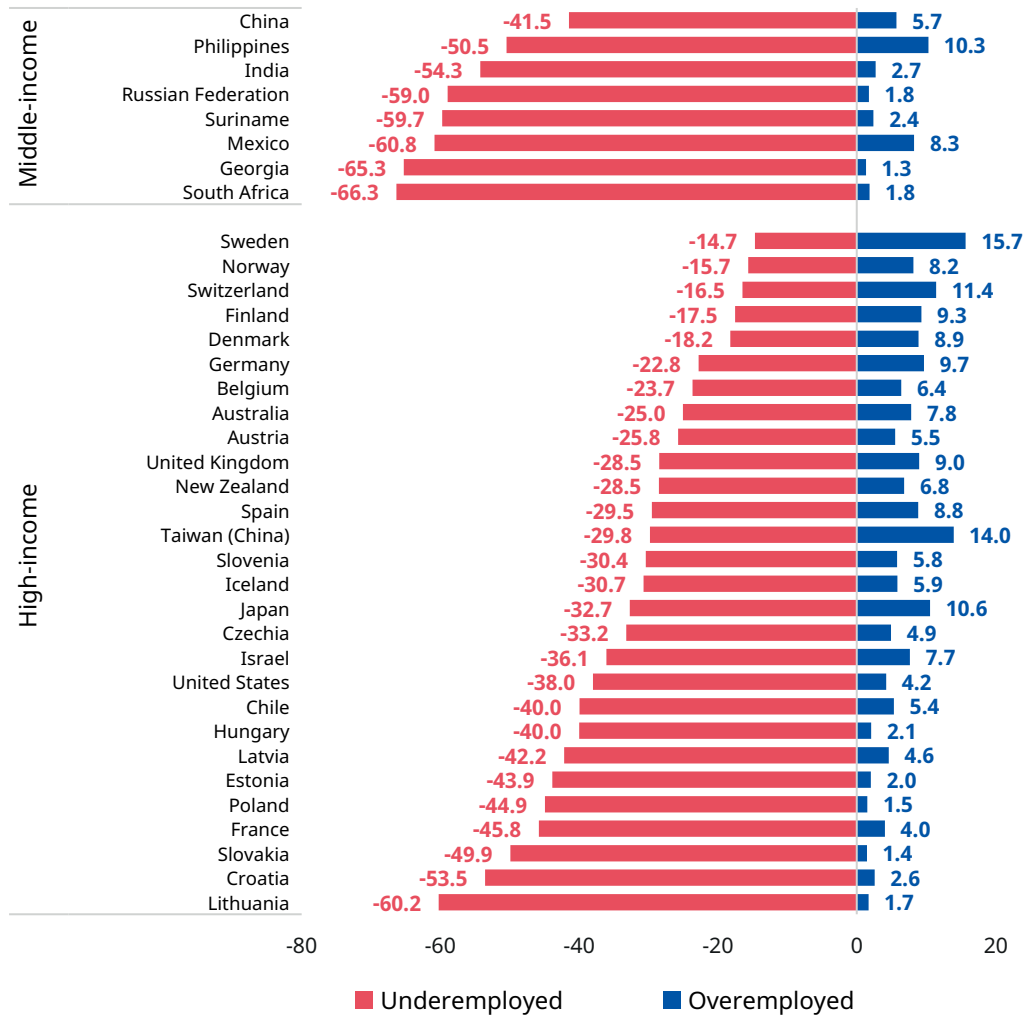
1. Work longer hours and earn more money
2. Work the same number of hours and earn same money.
3. Work fewer hours and earn less money
- (4. Can't choose)

The subjective measure provides insights into variations among regions and levels of economic development. Table 8, combining the regional and income-level groupings, shows that more than 43 per cent of workers globally want to change their hours for a better match. These total mismatch rates are the highest in Latin America, somewhat higher in Eastern Europe and Asia, and lowest in all the rest of Europe. The anglophone countries are near the average. While Asia's higher rate of working-time mismatches is due to its relatively higher overemployment rate of about 10 per cent, the higher rates in Latin America and Eastern Europe are due more to a higher incidence of underemployment. In contrast, the countries of Northern, Western and Southern Europe all feature relatively lower mismatch rates, owing primarily to a lower prevalence there of underemployment. Also, figure 36 ranks the 37 ISSP survey countries or areas by their subjective underemployment and overemployment rates, lowest to highest, and then sorts them by country-level income. The high-income countries exhibit overemployment rates above 7 per cent, at 2.5 to 3 percentage points higher than the other countries with relatively lower-income levels. Both the middle-income and lower-middle-income countries have rates between only 4 and 5 per cent. Although underemployment is notably higher in these countries, averaging 57 per cent, virtually all the middle-income countries have higher than the global average underemployment. In contrast, less than 32 per cent of workers are underemployed in high-income countries. Therefore, overall working-time mismatch rates are lower in high-income countries, particularly in Europe, while underemployment is significantly higher in middle-income countries.

► **Table 8. Subjective mismatch, by cluster and country-income level**

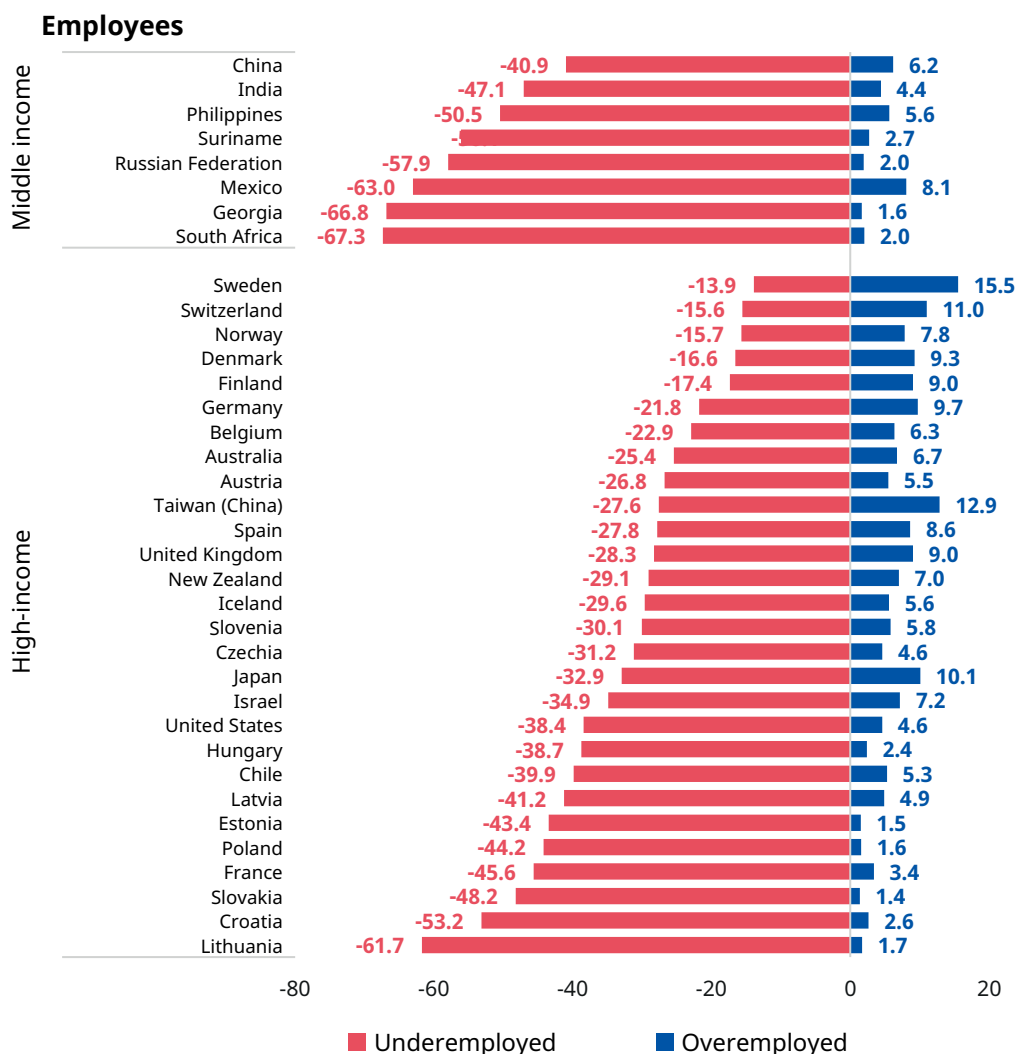
Region	Mismatch Total	Mismatch Underemployment	Mismatch Overemployment
Africa	68.2	66.3	1.8
Latin America	57.9	52.4	5.5
North America	42.2	38.0	4.2
Asia and the Pacific	45.1	35.9	9.2
Eastern Europe and CIS	49.2	46.1	3.1
Northern Europe	35.8	28.3	7.5
Southern and Western Europe	36.3	29.0	7.3
Cluster:			
Anglophone countries	44.0	38.2	5.8
Latin America	57.9	52.4	5.5
Asia	48.5	38.8	9.8
Eastern Europe and CIS	49.2	46.1	3.1
Northern Europe	35.5	28.2	7.3
Southern and Western Europe	36.3	29.0	7.3
Income level:			
High-income countries or areas	38.7	31.6	7.1
Upper-middle-income countries or areas	61.0	56.9	4.1
Lower-middle-income countries or areas	61.5	56.8	4.7

► Figure 36. Countries or areas ranked by underemployment and overemployment rates, among employees and non-employees, in high- and middle-income groupings, using subjective measure



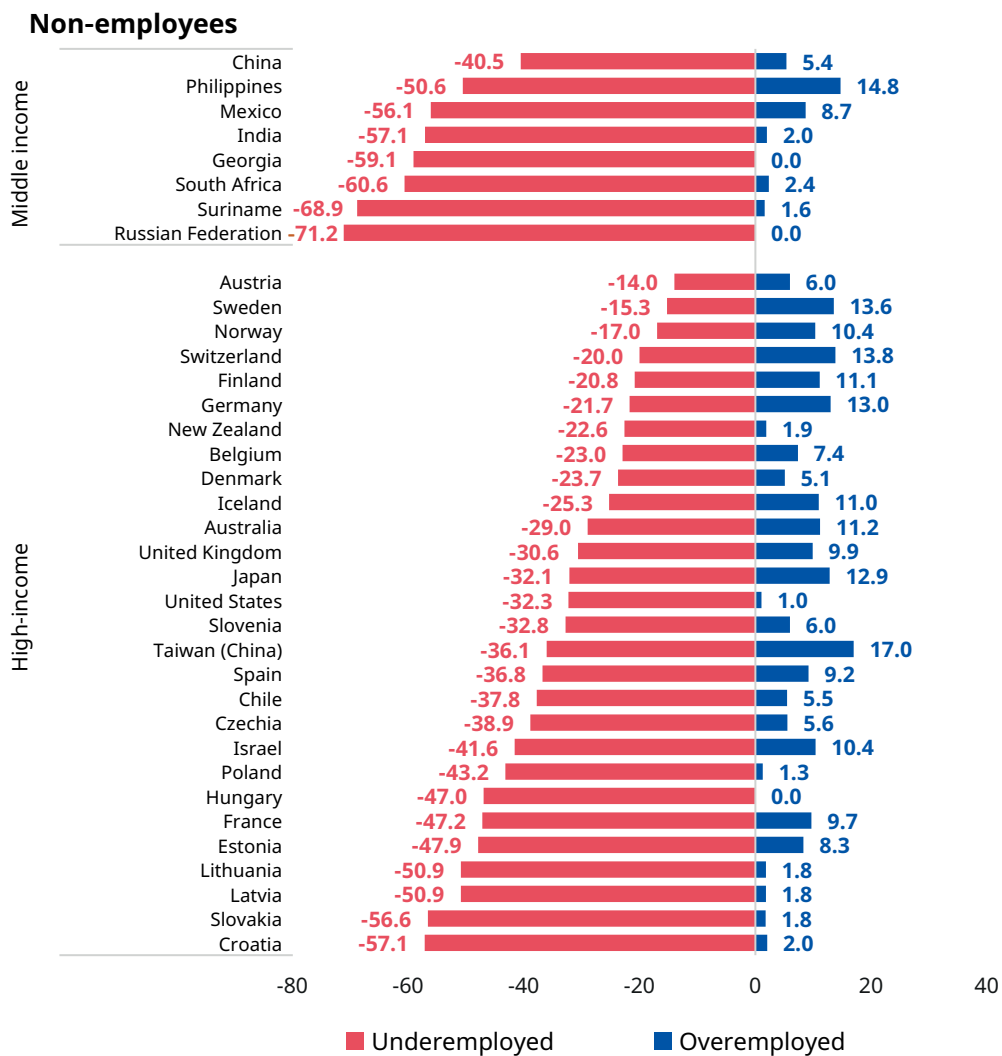
Underemployment and overemployment rates for both employees and non-employees are fairly consistent with each other, as highlighted in figures 37 and 38. However, these figures suggest that both underemployment and overemployment are somewhat exacerbated by being a non-employee or self-employed worker, that is, they are tempered by being an employee rather than a non-employee. This suggests that employment arrangements have some bearing on the preference for more or fewer hours of work, both between and within countries. The generally higher mismatch rates for self-employed workers relative to employees is consistent with what was found using the objective measures. Again, this may be a surprising phenomenon to those who may expect that self-employed workers would have greater control over their own hours of work and/or self-select into self-employment for such autonomy. Nonetheless, it is evident that self-employment may be neither as voluntary nor as conducive to flexibility as might be assumed, which seems apparent across many countries, including some high-income ones (Anxo and Ericson 2019). Some exceptions, where employees exhibit noticeably higher underemployment than non-employees, include Mexico, Georgia, the United States, New Zealand, China, Lithuania, the Philippines and Lithuania.

Figure 37. Countries or areas ranked by underemployment rates, among employees, in high- and middle-income groupings, using subjective measure



Overemployment may be expected to be higher among employees, who might have less ability to adjust their own hours downwards than non-employees. This is indeed the case in countries such as India, Austria, Denmark and the United States. But the reverse is true in countries or areas such as the Russian Federation, the Philippines, Germany, Iceland, Australia, Taiwan (China), Israel, France and Estonia. Overall, there is some evidence from certain countries or areas that supports the notion that generated mismatches can be solved by self-employment, but there is even stronger evidence that employee status allows better matching of actual hours of work with preferred hours of work than does self-employment.

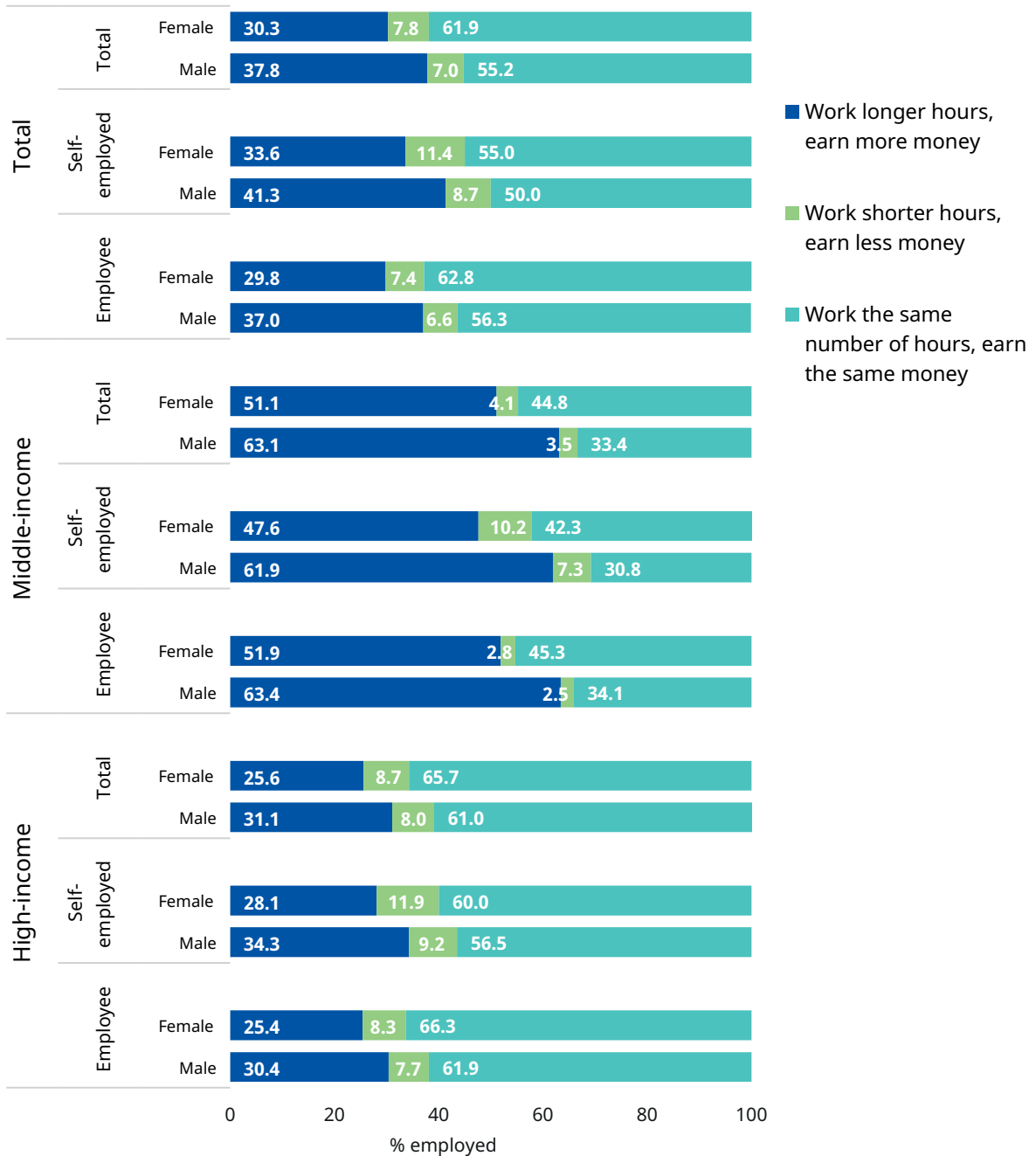
► Figure 38. Countries or areas ranked by underemployment rates, among non-employees, in high- and middle-income groupings, using subjective measure



4.2.3 Gender differences in mismatches

This section utilizes both the objective and the subjective measures to analyse gender differences in working-time mismatches. It might be expected that employed women would feel more overemployed, while men might feel more underemployed, following a neo-traditional household model of labour supply in which both perform paid work but women take on more unpaid household tasks and care work and men more income-provider roles. Figure 39 displays the gender distribution of mismatches based on the subjective measure, which is the more continuous measure of underemployment. The level of men’s underemployment is much higher – 7.5 per cent higher – than women’s. By contrast, women’s rate of overemployment (8 per cent) is only negligibly higher than men’s (7 per cent).

► **Figure 39. Gender and the subjective underemployment measure among employees and non-employees, high- and middle-income countries or areas**



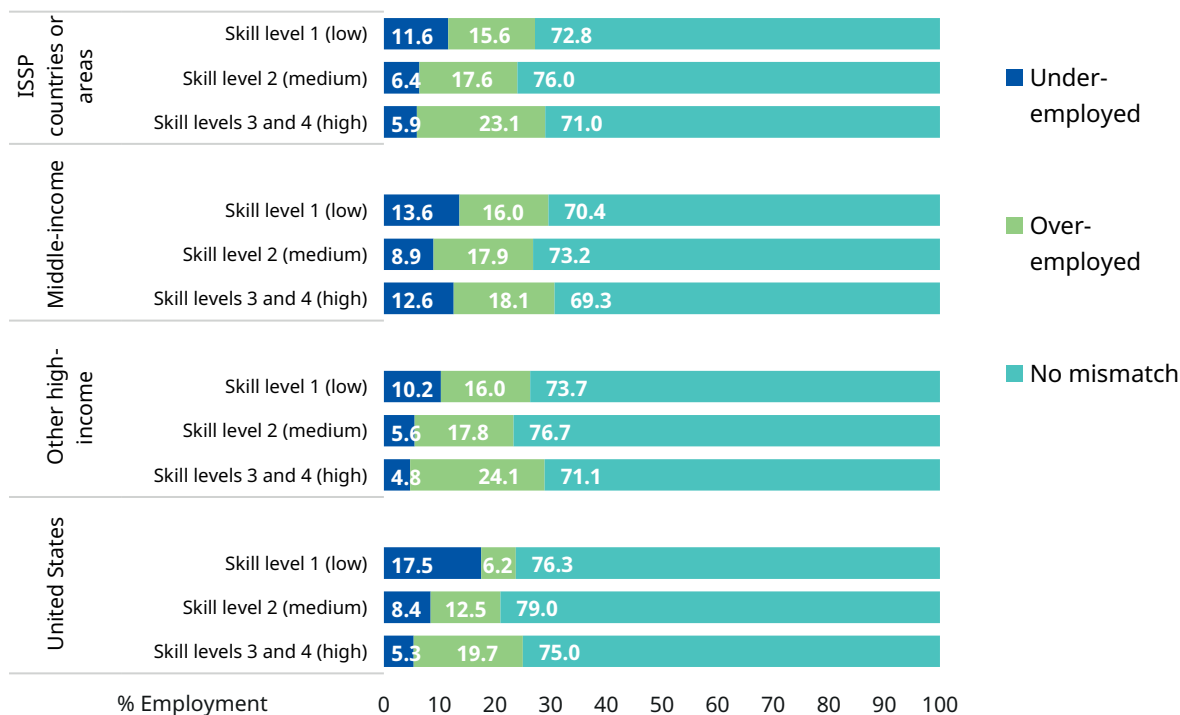
Looking at the objective measure across all 37 countries or areas covered by the ISSP survey, the average underemployment rate for women is about 10 per cent – or 8 to 11 per cent, depending on whether the national or ILO definition is used (see appendix to this chapter, figures A.1 and A.2) – while the average overemployment rate for women is about 23 to 24 per cent. For men, the corresponding average underemployment rate is slightly lower, at 6 per cent, as is the corresponding average overemployment rate, at just under 16 per cent. The female disadvantage in objective working-time mismatches is driven mainly by the middle-income countries or areas and less by the high-income countries or areas. While men's labour force participation rates and workweeks are both typically higher than women's, women endure not only higher rates of overemployment, as might be expected, but also relatively higher rates of objective underemployment relative to men (Blau and Kahn 2013; Weeden, Cha and Bucca 2016). This suggests that at least for those who actively participate in the labour market, women tend to suffer a greater chance of mismatch of their preferred hours of work in both directions. In terms of their preferences for full-time or part-time hours of work without reference to income, women who are employed full-time have a stronger preference for part-time work. This group of women also have a noticeably higher rate of overemployment in most cases. Therefore, when thinking about a discrete change to part-time work, women are both more overemployed and more underemployed in this context. Both women and men in middle-income countries or areas have higher rates of underemployment than they do in high-income countries or areas. Overall, the objective measure provides a clearer picture of women being more overemployed and underemployed relative to men.

4.2.4 Occupational skills and mismatches

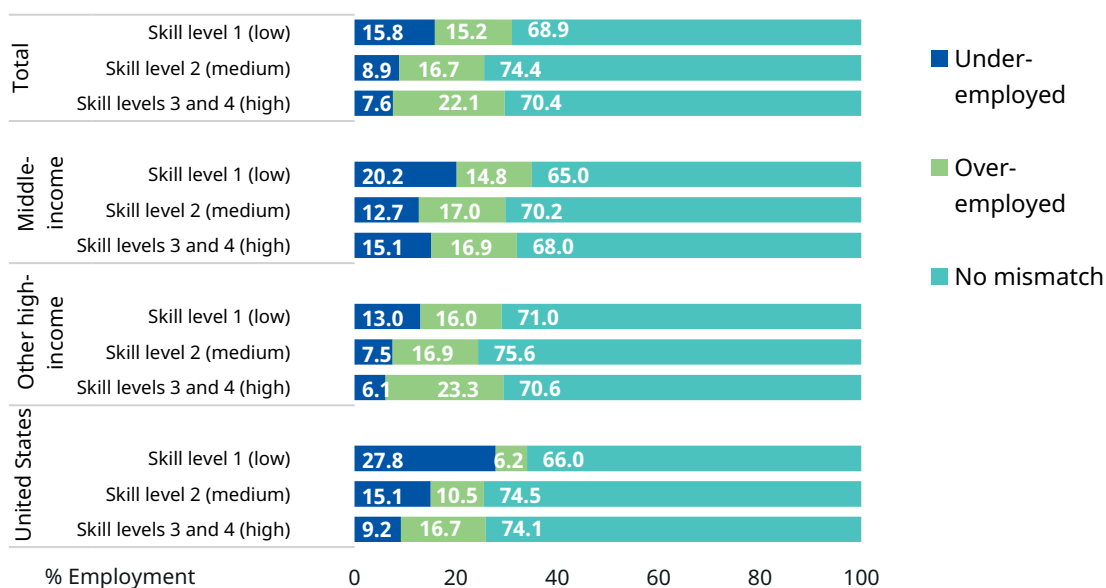
Workers are grouped by their listed occupation into three different skill levels and then their underemployment and overemployment rates are compared. The objective measure presented in figure 40 shows that relatively low-skilled occupations exhibit about double the objective underemployment rates of high-skilled jobs. The rates of medium-skilled occupations bear more resemblance to those of lower-skilled occupations than those of high-skilled occupations. Underemployment varies from 20 per cent in low-skilled occupations in lower-income countries to only 5 per cent in high-skilled occupations in high-income countries, demonstrating the greater difficulty of obtaining working-time matches in lower-middle-income countries. In high-income countries, underemployment rates are generally higher at the low-skilled levels. However, at the medium-skilled and high-skilled levels, the rates are quite similar, with a more or less linear gradient. In middle-income countries or areas, the rates of underemployment are if anything higher for the high-skilled than for the medium-skilled occupations. Yet, in the United States, underemployment is far more common in the low-skilled sectors, at almost 18 per cent, which is well above the rates in other high-income and even middle-income countries or areas. The pattern for subjective underemployment (see figure 41) is similar, at 48 per cent for low-skilled, 40 per cent for medium-skilled and 30 per cent for high-skilled workers. Rates range by skill category from 42 to 25 per cent underemployed in high-income economies, while they range more narrowly from 61 to 55 per cent in middle-income economies.

► Figure 40. Objective measures of mismatch, by occupational skill level, high- and middle-income countries or areas and United States

Panel A. Based on the national definition of part-time

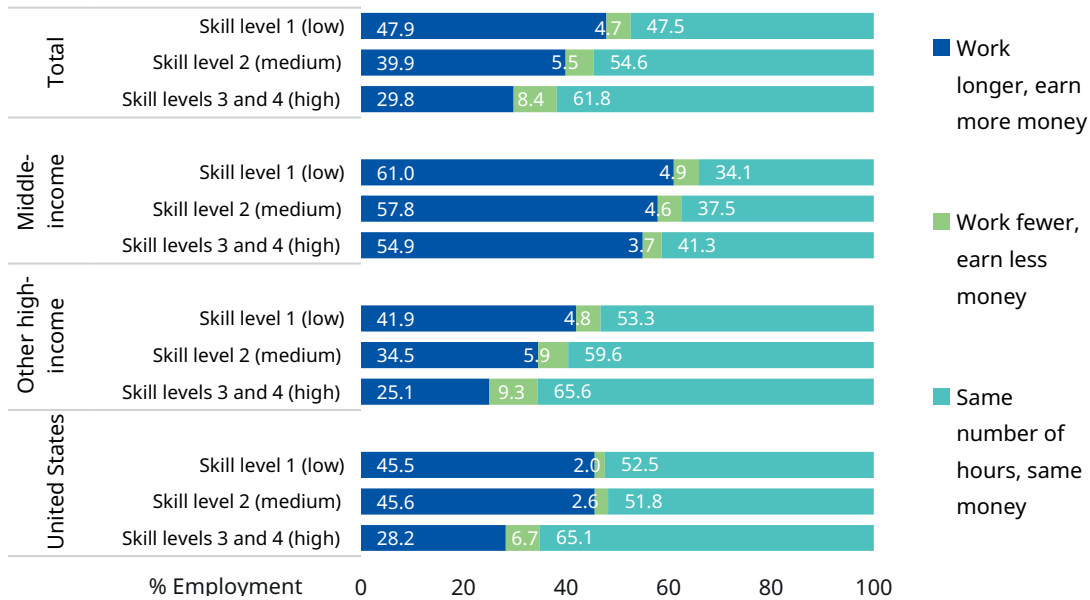


Panel B. Based on the ILO definition of part-time



For overemployment, rates are higher for high-skilled occupations using both measures. With the objective measure, medium- and low-skilled occupations exhibit the expected gradient, but the low-skilled and medium-skilled rates are quite similar. Using the subjective measure, global overemployment varies only within a fairly narrow band of 5 to 9 per cent by skill level, from almost 10 per cent for high-skilled occupations in high-income countries or areas (although lower in the United States, at 7 per cent) to just over 5 per cent in middle-income countries. Therefore, overemployment globally affects about 1 in 10 workers in high-income countries and about 1 in 16 workers in the middle-income countries. Overall, the patterns are fairly consistent using both measures, with the overall pattern being that as we move up the job skill ladder, overemployment is higher and underemployment lower.

► **Figure 41. Subjective measure of mismatch, by occupational skill level, high and middle-income countries or areas and United States**



4.2.5 Working-time mismatches and their effects on work-life balance

A work-life balance indicator derived from the ISSP facilitates the analysis of the association between working-time mismatches and work-life balance. The indicator was developed using the most direct measure of work-life balance available in the ISSP Work Orientations IV module (question 19): “How often do you feel that the demands of your job interfere you’re your family life?”. Responses can range from “never” to “always” (which is combined with “often”), with “hardly ever” and “sometimes” as points in between. Table 9 correlates this reported frequency of work-family conflict with the hours of work mismatch, by regional cluster. The correlation of work-family conflict with the objective hours mismatch measures supports the expectation that the overemployed are relatively more likely than others to respond “always/often” and “sometimes”, whereas the underemployed are much more likely to say “never”. Some 18.5 per cent of the overemployed, versus only 10.6 per cent of the underemployed, state that they often or always experience work-family conflict. Therefore, almost one in every five workers globally who report overemployment face frequent work-life conflict.

Regionally, the pattern of overemployed workers having greater work-life conflict continues. In the anglophone countries, the contrast is stark: overemployed workers are three times more likely than underemployed workers to express work-family time conflict at least “often” (25.5 per cent versus only 8.3 per cent). Only 15.2 per cent of overemployed workers say they “never” feel work-life interference. That rate is less than half of the percentage among underemployed workers who report never experiencing work-life conflict. In contrast, the lowest work-family conflict frequency is among employees in Asia, where only 10 per cent of overemployed workers respond “often” or more (and only 5 per cent of underemployed workers). Indeed, globally more than 53 per cent of overemployed workers experience work-family conflict at least “sometimes” – and that rate exceeds 63 per cent in the anglophone countries. In both Northern and Western Europe, work-family conflict is less apparent among overemployed workers – only about 12 to 14 per cent of overemployed workers report always or often having work-family conflict and a relatively larger proportion (about one third) “never” experience it. However, perhaps surprisingly, in Europe (except Eastern Europe), underemployed workers are actually more likely than overemployed workers to report work-family conflict.

In addition, the subjective measure reinforces the finding that overemployment is firmly associated with work-life time conflict. Always or often feeling such conflict is about twice as prevalent among overemployed workers. However, based on the subjective measure in anglophone countries, one in five underemployed workers (19 per cent) report having work-family conflict always or often; this result is most likely due to unpredictable work schedules among those in short-hours part-time work (see Ch. 5). In the other regions, only 10 to 11 per cent of underemployed workers report this frequent work-family conflict. Globally, experiencing work-family conflict at least sometimes encompasses more than 60 per cent of workers – although again, this figure is somewhat higher in the anglophone countries (64 per cent) than in Asia or Latin America (a little less than or more than half, respectively). The subjective measure finds, more consistently than the objective measure, that overemployed workers are about twice as likely to report always, often or sometimes experiencing work-family conflict as underemployed workers. Overall, with some exceptions (for example, the objective measure in non-Eastern Europe), the two measures consistently show that overemployed workers tend to experience the highest rates of work-family conflict. When the question is framed with income adjustment, there is a generally higher willingness to sacrifice income to attain a better work-life balance, at least outside the Asian and Eastern European regions. Globally, 1 in every 5 overemployed workers face frequent work-life conflict; by contrast, about 1 in every 11 underemployed workers do so.

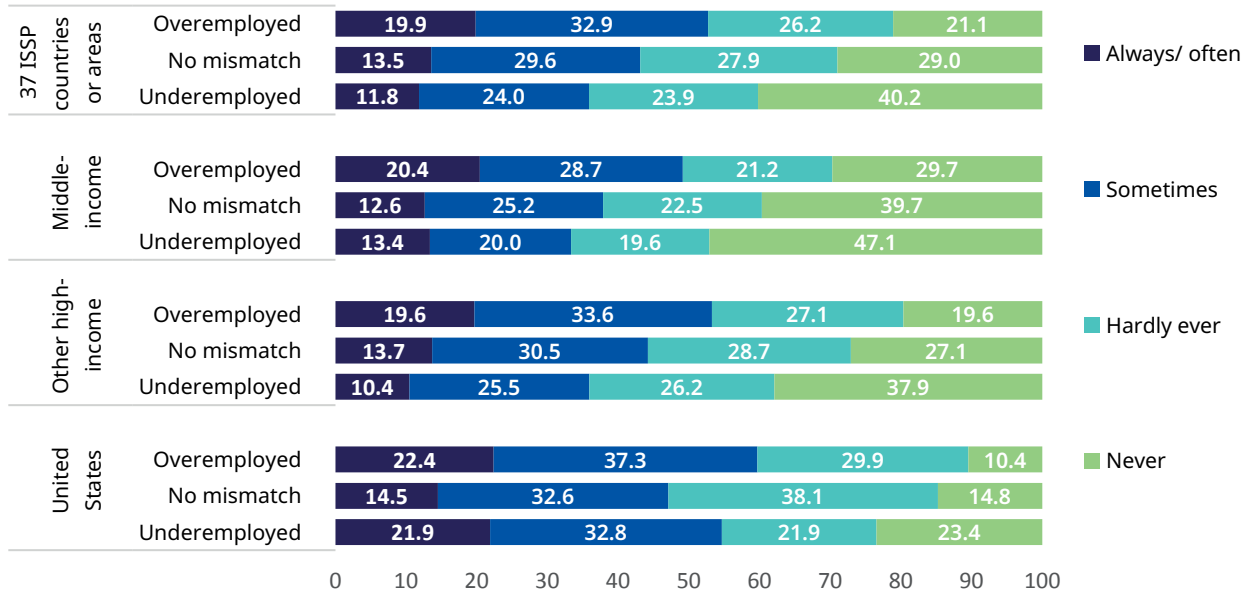
► Table 9. Work-life balance and incidence of over- and underemployment, by regional cluster

N = 2,699 employees		Hours-of-work status (question 9)		Hours-of-work preference (question 11)	
Region	How often do you feel that the demands of your job interfere with your family life? (question 19)	Total overemployed	Total underemployed	Total overemployed	Total underemployed
Total	Always/often	18.5%	10.6%	25.7%	13.7%
	Sometimes	33.9%	28.6%	34.9%	29.1%
	Hardly	27.4%	24.5%	23.8%	25.4%
	Never	20.2%	36.4%	15.5%	31.8%
Anglophone countries	Always/often	25.5%	8.30%	30.5%	18.9%
	Sometimes	37.2%	38.5%	33.1%	34.2%
	Hardly	22.1%	16.5%	21.2%	20.3%
	Never	15.2%	36.7%	15.3%	26.6%
Latin America	Always/often	13.4%	13.7%	27.0%	10.5%
	Sometimes	26.4%	23.3%	24.3%	22.4%
	Hardly	24.9%	9.6%	24.3%	23.4%
	Never	35.4%	53.4%	24.3%	43.6%
Asia	Always/often	10.0%	5.7%	15.3%	10.3%
	Sometimes	28.5%	25.0%	31.2%	26.8%
	Hardly	33.0%	32.1%	28.4%	32.9%
	Never	28.5%	37.1%	25.1%	30.0%
Eastern Europe	Always/often	16.2%	9.6%	18.1%	11.6%
	Sometimes	30.5%	33.7%	41.0%	27.5%
	Hardly	25.6%	19.3%	14.5%	21.0%
	Never	27.7%	37.3%	26.5%	39.9%
Northern Europe	Always/often	14.4%	20.5%	32.6%	16.2%
	Sometimes	23.2%	36.8%	37.2%	28.1%
	Hardly	27.2%	30.7%	22.1%	33.2%
	Never	35.2%	11.9%	8.1%	22.5%
Western and Central Europe	Always/often	11.8%	22.6%	27.1%	14.5%
	Sometimes	28.7%	39.1%	36.0%	32.0%
	Hardly	28.3%	24.8%	26.6%	27.5%
	Never	31.1%	13.5%	10.3%	26.0%

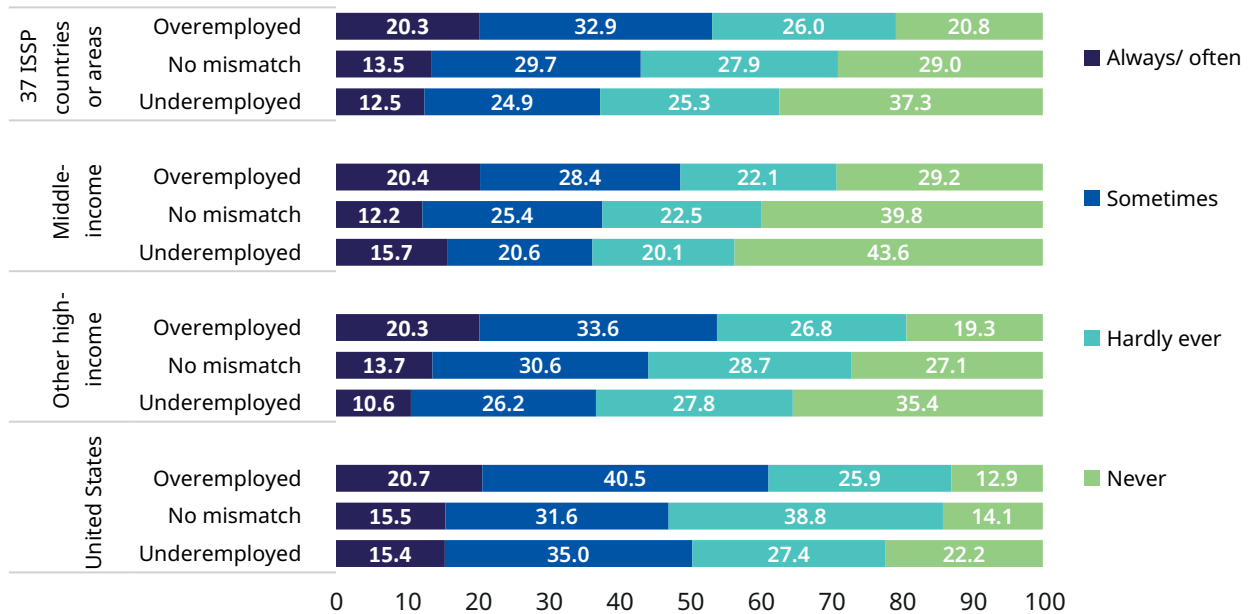
The finding of greater work-life conflict for the overemployed is maintained when considering levels of economic development. Figure 42 is based on the objective measure of working-time mismatches (its twin definitions); in both higher and middle-income countries, those workers who report "never" facing work-family time conflicts are noticeably less likely to be overemployed than underemployed. There are virtually identical levels of reporting "always/often" in both the high and middle-income level countries and identical proportions reporting "no mismatch" among those who "always or often" face such conflict. The preference to adjust hours downward (overemployment) is twice as high among those who report "always/often" facing time conflict. Overall, there is clear evidence of the association between a preference for reduced working time and greater time conflict.

► **Figure 42. Objective measures of over/underemployment and work interference with family, high- and middle-income countries or areas and United States**

Panel A. Based on the national definition of part-time



Panel B. Based on the ILO definition of part-time



4.3. The effects of working-time mismatches on worker well-being

The work-life balance indicator has highlighted that working-time mismatches, specifically overemployment, is associated with greater work-life conflict. Research studies focusing on the effects of working-time mismatches on work-life balance are limited. However, a significant amount of research demonstrates the correlation of both underemployment and overemployment with negative outcomes for workers' well-being (Spurgeon, Harrington and Cooper 1997; Bartoll and Ramos, 2020; Bassanini and Caroli 2015; Clark et al. 2018; Moortel, Dragano and Wahrendorf 2020; Otterbach, Wooden and Fok 2016; Heyes et al. 2017; Dooley, Prause, and Ham-Rowbottom 2000; Prause and Dooley 1997; Bell et al. 2012). This section analyses the potential effects of working-time mismatches on worker well-being by focusing on three areas of well-being: life satisfaction, physical health and mental health.

4.3.1 Life and job satisfaction

Working-time mismatches negatively affect the life satisfaction of overemployed workers, while results are more mixed for underemployed workers. The effect of hours of work on job satisfaction, as evidenced by self-determined hours of work for full-time employees, was found to be significantly positive (Hanglberger 2010, based on German Socio-Economic Panel (GSOEP) data for 2005 and 2007). Having a degree of control over their hours of work facilitates better working-time matches for workers, leading to a greater likelihood of job satisfaction. In an analysis focusing on overall life satisfaction (including job, family life and free time satisfaction), the desire to reduce their hours of work negatively impacted the job satisfaction of German workers (Holly and Mohenen 2012, based on GSOEP data for 2009). Nearly 60 per cent of German workers in 2009 desired to reduce their hours of work, representing a considerable proportion of the workforce. By contrast, multiple studies employing subjective measures of job satisfaction have been unable to detect sizeable negative associations with part-time work (Bardasi and Francesconi 2004; Blanchflower and Oswald 1998; Booth and van Ours 2007; D'Addio, Eriksson and Frijters 2007; Manning and Petrongolo 2004; Wooden and Warren 2004). In one of the few studies focusing on overemployment, Australian workers were found to have meaningful reductions in life satisfaction due to working more hours than they desired (Wooden, Warren and Drago 2009). This effect was significant for both sexes, although it was larger for men. Unsurprisingly, a study on the impact of underemployment on worker well-being using longitudinal data found little evidence to support the claim that underemployed workers have lower satisfaction than otherwise comparable fully employed workers (Friedland and Price 2003). Therefore, working-time mismatches negatively impact overemployed workers' life satisfaction and job satisfaction, but there is more mixed evidence of such an impact for the underemployed.

4.3.2 Physical health

Health has been established as one of the most important determinants of well-being and has a significant impact on work-life balance (Clark et al. 2018). An analysis of longitudinal data from the Americans Challenging Lives Study from 1986 to 1994 found that underemployed workers suffer more on average from chronic diseases than workers with matched hours, and they also report lower levels of general health and well-being than adequately employed workers (Friedland and Price 2003). Several studies have also established an association between overemployment and poorer physical health (Spurgeon, Harrington and Cooper 1997; Bassanini and Caroli 2015). Finally, an analysis of the impact of overemployment on couples finds that it reduces not only the self-assessed health of the overemployed worker but also the health of their partner (Leipinteur 2019). Therefore, both overemployment and underemployment may negatively impact the physical health of workers.

4.3.3 Mental health

In terms of mental health, working-time mismatches have been found to negatively impact workers across the EU (Heyes and Tomlinson 2020), particularly in the United Kingdom (Bell and Blanchflower 2019). An analysis of workers in Australia and Germany found that, while controlling for hours worked, overemployment negatively impacts workers' psychological well-being (Otterbach, Wooden and Fok 2016). These results were reinforced by a study detecting a similar pattern in the United Kingdom with regard to overemployment (Angrave and Charlwood 2015, based on the British Household Panel Survey (BHPS)). Similarly, overemployment negatively impacts workers' mental health. When measuring well-being along "enthusiasm-depression" and "contentment-anxiety" axes, lower scores on the scales occurred if workers were dissatisfied with the hours of work on offer, while underemployed workers generally experienced "lower well-being levels than those who are more adequately employed" (Heyes, Tomlinson and Whitworth, 2017, p.84, based on the United Kingdom Skills and Employment Survey for 2006 and 2012). Further studies have reaffirmed this link, with underemployment leading to an increased likelihood of depression and lower self-esteem (Dooley, Prause and Ham-Rowbottom, 2000; Prause and Dooley 1997). Finally, dissatisfying working conditions generate stress and worsened mental health, which is subsequently brought into the household and likely to be transmitted to other household members (Bolger et al. 1989). Through this contagion, underemployment and overemployment may directly reduce the mental health of the partner involved. Therefore, working-time mismatches are associated with negative physical and mental health outcomes.

4.3.4 Effects of hours mismatches on employers: productivity, performance and retention

Regarding hours mismatches, employers potentially face a type of conflict of their own. There are economic incentives, including pressures to maximize current profits and schedule hours of work at a level that precisely matches the current level of orders, customers, clients, patients and so on. There are additional pressures to try to instantaneously match the hours of work with unanticipated fluctuations in demand in order to minimize short-term labour costs (Golden 2015). Indeed, as much as 23 per cent of the United States workforce is effectively working "on demand" (Fugiel and Lambert 2019). The dilemma that often arises is that such practices indirectly bring about higher and often more subtle labour costs in the long term. For one thing, workers facing time-based conflicts generally exhibit reduced overall productivity (Netemeyer, Maxham and Pullig 2005). Also, employees' self-rated job performance as measured by a scale of responses to questions (such as "In the last seven days/week you worked, how well were you ... handling the responsibilities and daily demands of your work?" or "... performing without mistakes?") tends to be made worse by underemployment and more generally by a poorer person-environment fit (Allan, Tay and Sterling 2017), which includes the extent of the match between actual and preferred hours of work. Moreover, it is the size of the gap between preferred and actual hours of work, in addition to the total number of hours of work (Pencavel 2018) that affects a worker's job performance (Wooden, Warren and Drago 2009).

In addition, the hours-of-work mismatch is a factor that drives worker mobility, such as the intention to withdraw from the labour force or quit their current job (Knaus and Otterbach 2019); therefore, improving hours-of-work matching helps to suppress turnover (Moen, Kelly and Hill 2011; McKee-Ryan and Harvey 2011). Hours-of-work mismatches are also a source of employee absenteeism (Lee, Wang & Weststar 2015). A mismatch between workers' actual hours of work and their preferred hours of work can also lead to a decreased commitment of employees to the organization and/or job (Van Emmerik and Sanders 2005) and more negative job attitudes (Krausz, Sagie and Bidermann 2000). In particular, overemployment involving long hours of work that is beyond workers' locus of control (Buelens and Poelmans 2004) can eventually erode workers' performance due to poor physical health via acute or chronic fatigue or stress, injury or pain (Beckers et al. 2008) and/or poor mental health (Bell, Otterbach

and Sousa-Poza 2012; Otterbach et al. 2021). External pressure to work, without employee discretion, often diminishes a worker's satisfaction with their job (Green 2004). Conversely, when employers institute "self-managed working time", it increases employee effort exerted –even after accounting for all the observed and unobserved characteristics that differ among employees (Beckmann, Cornelissen and Kräkel 2017).

4.4. Conclusion

Overall, this chapter has utilized two different, equally valid measures to present an array of working-time match and mismatch patterns, based on country or area, region, gender, income and occupational skill level. Two measures each for both overemployment and underemployment were used in order to capture the different conceptualizations of working-time mismatches that exist. High-income countries or areas tend to have slightly higher rates of overemployment and lower rates of underemployment than upper-middle-income and lower-middle-income countries or areas, with the key exception of anglophone countries. Work-life imbalances are strongly connected with the incidence and rate of overemployment in most regions, countries or areas and income levels. Interestingly, self-employed workers report a higher incidence of underemployment than employees on a payroll. In terms of gender, there is a general pattern of women having greater rates of both overemployment and underemployment. In addition, there is a clear correlation of increasing occupational skill levels with higher overemployment and lower underemployment. Understanding the prevalence of working-time mismatches is also important due to the negative effects it has not only on work-life balance but more broadly on indicators of workers' well-being, including life and job satisfaction, physical health and mental health. The findings of the work-life balance indicator support the findings of previous research that overemployment is especially harmful to work-life balance. They also reinforce findings that the overemployed report lower life satisfaction, while both types of working-time mismatches tend to lead to poorer outcomes for physical and mental health. From the employers' perspective, working-time mismatches among workers generally results in reduced productivity, poorer job performance and higher turnover and absenteeism. Therefore, there is a need to find policy solutions to mitigate working-time mismatches in order to support workers in achieving a better work-life balance and better overall well-being.

4.5. References

- Abraham, Katharine G., and Susan N. Houseman. 2022. *What Do We Know About Alternative Work Arrangements in the United States? A Synthesis of Research Evidence from Household Surveys, and Administrative Data*. W.E. Upjohn Employment Institute.
- Allan, Blake A., Louis Tay and Haley M. Sterling. 2017. "Construction and Validation of the Subjective Underemployment Scales (SUS)". *Journal of Vocational Behavior* 99: 93–106.
- Angrave, David, and Andy Charlwood, A. 2015. "What is the Relationship between Long Working Hours, Overemployment, Under-employment and the Subjective Well-Being of Workers? Longitudinal Evidence from the United Kingdom". *Human Relations* 68(9): 1491-1515.
- Anxo, Dominique, and Thomas Ericson. 2019. "Bogus Self-employment in Sweden". In *Self-Employment as Precarious Work: A European Perspective*, edited by Wieteke Conen and Joop Schippers. Edward Elgar Publishing.
- Bardasi, Elena, and Marco Francesconi. 2004. "The Impact of Atypical Employment on Individual Wellbeing: Evidence from a Panel of British Workers". *Social Science and Medicine* 58(9): 1671–1688.
- Bartoll, Xavier, and Raul Ramos. 2020. "Working Hour Mismatch, Job Quality, and Mental Well-Being across the EU28: A Multilevel Approach". *International Archives of Occupational and Environmental Health* 93(6): 733–745.
- Bassanini, Andrea, and Eve Caroli. 2015. "Is Work bad for Health? The Role of Constraint versus Choice". *Annals of Economics and Statistics* 119(120): 13–37.
- Beckers, Debby G.J., et al. 2008. "Voluntary or Involuntary? Control over Overtime and Rewards for Overtime in Relation to Fatigue and Work Satisfaction". *Work & Stress* 22(1): 33–50.
- Beckmann, Michael, Thomas Cornelissen, and Matthias Kräkel. 2017. "Self-Managed Working Time and Employee Effort: Theory and Evidence". *Journal of Economic Behavior & Organization* 133: 285–302.
- Bell, David, Steffen Otterbach and Alfonso Sousa-Poza. 2012. "Work Hours Constraints and Health". *Annals of Economics and Statistics* 105–106: 35-54.
- Bell, David N.F., and David G. Blanchflower. 2019. "The Well-Being of the Overemployed and the Underemployed and the Rise in Depression in the United Kingdom". *Journal of Economic Behavior & Organization* 161: 180–196.
- Bonnet, Florence. 2015. *Social Protection Coverage across Employment Patterns*. ILO.
- Booth, Alison L., and Jan C. Van Ours. 2008. "Job satisfaction and family happiness: the part-time work puzzle". *The Economic Journal* 118(526): F77-F99.
- Blanchflower, David G. and Andrew J. Oswald. 1998. "What Makes an Entrepreneur?". *Journal of Labor Economics* 16(1): 26–60.
- Blau, Francine D., and Lawrence M. Kahn. 2013. "Female Labor Supply: Why is the United States Falling Behind?" *American Economic Review* 103(3): 251–256.
- Bolger, Niall, et al. 1989. "The Contagion of Stress across Multiple Roles". *Journal of Marriage and the Family* 51(1): 175–183.
- Buelens, Marc, and Steven Poelmans. 2004. "Enriching the Spence and Robbins' Typology of Workaholism: Demographic, Motivational and Organizational Correlates". *Journal of Organizational Change Management* 17(5): 440–458.
- Clark, Andrew E., et al. 2018. *The Origins of Happiness: The Science of Well-Being Over the Life Course*. Princeton University Press.

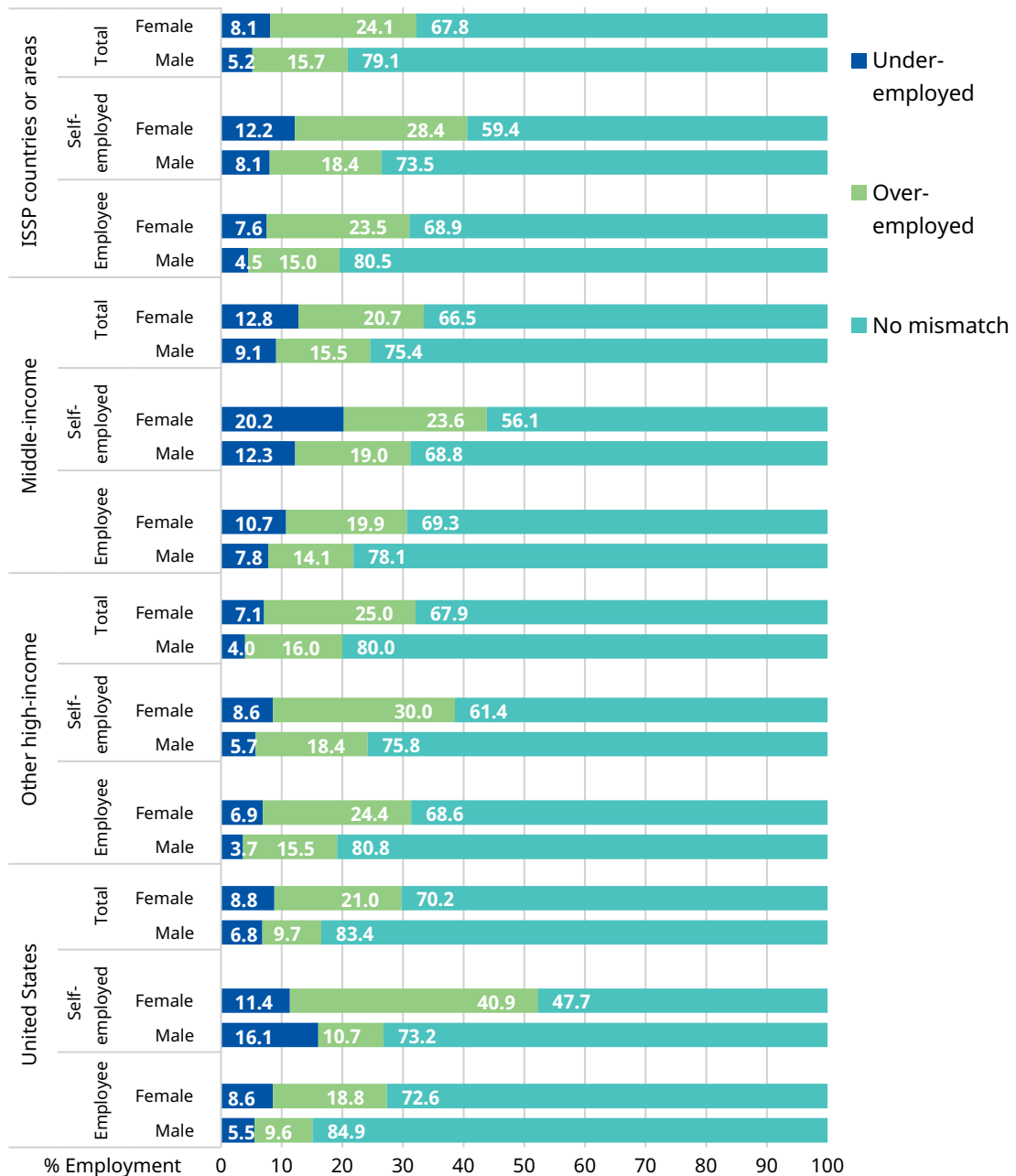
- D'Addio, Anna Cristina, Tor Eriksson and Paul Frijters. 2007. "An Analysis of the Determinants of Job Satisfaction when Individuals' Baseline Satisfaction Levels May Differ". *Applied Economics* 39(19): 2413–2423.
- De Groof, Sarah, et al. 2018. *Work-Life Balance in the Modern Workplace. Interdisciplinary Perspectives from Work-Family Research, Law and Policy*.
- Dooley, David, Joann Prause and Kathleen A. Ham-Rowbottom. 2000. "Underemployment and Depression: Longitudinal Relationships". *Journal of Health and Social Behavior* 41(4): 421–436.
- Friedland, Daniel S., and Richard H. Price. 2003. "Underemployment: Consequences for the Health and Well-Being of Workers". *American Journal of Community Psychology* 32(1–2): 33–45.
- Fu, Haolin, and Nikolaos E. Dimotakis. 2019. "Effects of Over- and Under-Work on Individual Attitudes and Well-Being". *Academy of Management Proceedings* 2019(1): 15768.
- Fugiel, Peter J., and Susan J. Lambert. 2019. "On-Call and On-demand Work in the USA: Adversarial Regulation in a Context of Unilateral Control. In *Zero Hours and On-call Work in Anglo-Saxon Countries*, edited by Michelle O'Sullivan et al., 111–135. Springer.
- Golden, Lonnie. 2012. *The Effects of Working Time on Productivity and Firm Performance: A Research Synthesis Paper*. Conditions of Work and Employment Series No. 33. ILO.
- Golden, Lonnie, and Jaesung Kim. 2017. "Irregular Work Shifts, Work Schedule Flexibility and Associations with Work–Family Conflict and Work Stress in the United States of America". Paper presented at the 5th Conference of the Regulating for Decent Work Network.
- Green, Francis. 2004. "Why has work effort become more intense?" *Industrial Relations: A Journal of Economy and Society* 43(4): 709–741.
- Hanglberger, D. 2010. Arbeitszufriedenheit und flexible Arbeitszeiten–Empirische Analyse mit Daten des Sozio-oekonomischen Panels (Job Satisfaction and Flexible Working Hours–An Empirical Analysis with Data from the German Socio-Economic Panel). SOEP Papers No. 304.
- Heyes, Jason, and Mark Tomlinson. 2020. "Underemployment and Well-Being in Europe". *Human Relations* 74(8): 1240–1266.
- Heyes, Jason, Mark Tomlinson and Adam Whitworth. 2017. "Underemployment and Well-Being in the UK before and after the Great Recession". *Work, Employment and Society* 31(1): 71–89.
- Holly, Sarah, and Alwine Mohnen. 2012. *Impact of Working Hours on Work–Life Balance*. SOEP Papers on Multidisciplinary Panel Data Research No. 465. DIW Berlin.
- Kim, Jaesung, and Lonnie Golden, L. 2022. "Inadequacy Inequality: The Distribution and Consequences of Part-Time Underemployment in the United States of America". *Community, Work & Family* 25(1): 84–111.
- Knaus, Michael C., and Steffen Otterbach. 2019. "Work Hour Mismatch and Job Mobility: Adjustment Channels and Resolution Rates". *Economic Inquiry* 57(1): 227–242.
- Krausz, Moshe, Abraham Sagie and Yehuda Bidermann. 2000. "Actual and Preferred Work Schedules and Scheduling Control as Determinants of Job-Related Attitudes". *Journal of Vocational Behavior* 56 (1): 1–11.
- Lee, Byron, Jim Wang and Johanna Weststar. 2015. "Work Hour Congruence: The Effect on Job Satisfaction and Absenteeism". *The International Journal of Human Resource Management* 26(5): 657–675.
- Lepinteur, Anthony. 2019. "Working Time Mismatches and Self-Assessed Health of Married Couples: Evidence from Germany". *Social Science & Medicine* 235:112410.
- Lyness, Karen S., et al. 2012. "It's All about Control: Worker Control over Schedule and Hours in Cross-National Context". *American Sociological Review* 77(6): 1023–1049.

- Manning, Alan, and Barbara Petrongolo. 2004. *The Part-Time Pay Penalty*. London: Women and Equality Unit, UK Department of Trade and Industry. IZA Discussion Paper No. 2419.
- McCrate, Elaine, Susan Lambert and Julia R. Henly. 2019. "Competing for Hours: Unstable Work Schedules and Underemployment among Hourly Workers in Canada". *Cambridge Journal of Economics* 43(5): 1287-1314.
- McKee-Ryan, Frances M., and Jaron Harvey. 2011. "I Have a Job, But...: A Review of Underemployment". *Journal of Management* 37(4): 962-996.
- Moen, Phyllis, Erin L. Kelly and Rachelle Hill. 2011. "Does Enhancing Work-Time Control and Flexibility Reduce Turnover? A Naturally Occurring Experiment". *Social Problems* 58(1): 69-98.
- Moortel, Deborah De, Nico Dragano and Morten Wahrendorf. 2020. "Involuntary Full-and Part-Time Work: Employees' Mental Health and the Role of Family-and Work-Related Resources". *Societies* 10(4): 81.
- Netemeyer, Richard G., James G. Maxham III and Chris Pullig. 2005. "Conflicts in the Work-Family Interface: Links to Job Stress, Customer Service Employee Performance, and Customer Purchase Intent". *Journal of Marketing* 69(2): 130-143.
- Otterbach, Steffen. 2010. "Mismatches between Actual and Preferred Work Time: Empirical Evidence of Hours Constraints in 21 Countries". *Journal of Consumer Policy* 33: 143-161.
- Otterbach, Steffen, et al. 2021. "Working-Time Regulation, Long Hours Working, Overemployment and Mental Health". *The International Journal of Human Resource Management* 32(22): 4659-4686.
- Pencavel, John H. 2018. *Diminishing Returns at Work: The Consequences of Long Working Hours*. Oxford University Press.
- Prause, Joann, and David Dooley. 1997. "Effect of Underemployment on School-Leavers' Self-Esteem". *Journal of Adolescence* 20(3): 243-260.
- Sousa-Poza, Alfonso, and Fred Henneberger. 2002. "An Empirical Analysis of Working-Hours Constraints in Twenty-One Countries". *Review of Social Economy* 60(2): 209-242.
- Spurgeon, Anne, J. Malcolm Harrington and Cary L. Cooper. 1997. "Health and Safety Problems Associated with Long Working Hours: A Review of the Current Position". *Occupational and Environmental Medicine* 54(6): 367-375.
- Van Emmerik, I.J. Hetty, and Karin Sanders. 2005. "Mismatch in Working Hours and Affective Commitment: Differential Relationships for Distinct Employee Groups". *Journal of Managerial Psychology* 20(8): 712-726.
- Wang, Jing. 2016. "Hours Underemployment and Employee Turnover: The Moderating Role of Human Resource Practices". *The International Journal of Human Resource Management*: 1565-1587.
- Weeden, Kim A., Youngjoo Cha and Mauricio Bucca. 2016. "Long Work Hours, Part-Time Work, and Trends in the Gender Gap in Pay, the Motherhood Wage Penalty, and the Fatherhood Wage Premium". *The Russell Sage Foundation Journal* 2(4): 71-102.
- Wooden, Mark, and Diana Warre. 2004. "Non-Standard Employment and Job Satisfaction: Evidence from the HILDA Survey". *The Journal of Industrial Relations*, 46(3): 275-297.
- Wooden, Mark, Diana Warren and Robert Drago. 2009. "Working Time Mismatch and Subjective Well-Being". *British Journal of Industrial Relations* 47(1): 147-179.

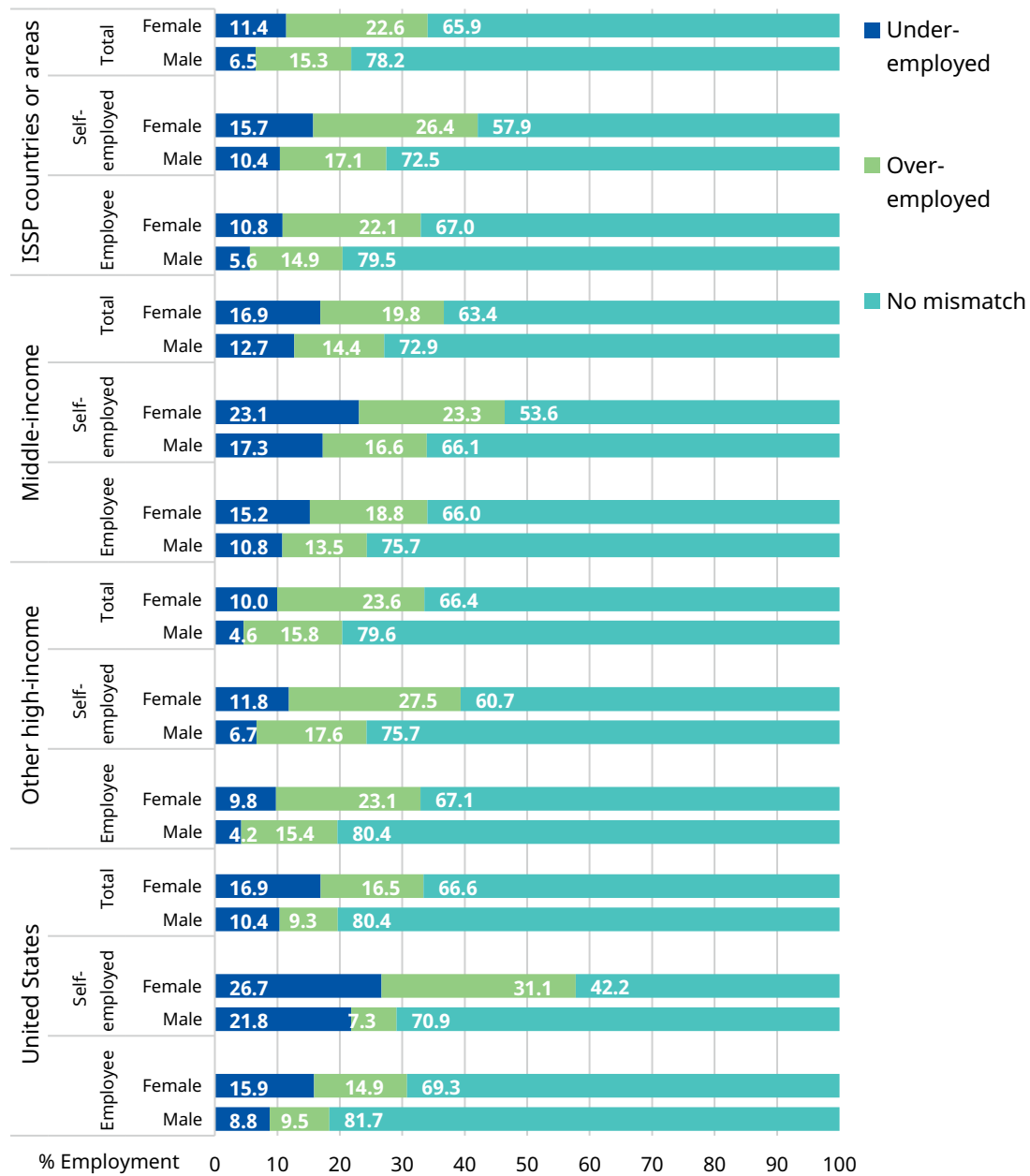
► Table A.1. Index of the 37 ISSP survey countries or areas surveyed based on regional clusters and country-income level (continued)

Country/area	Africa	Latin America	North America	Asia and Pacific	Eastern Europe and CIS	Northern Europe	Southern and Western Europe	Anglophon countries (only)	High-income countries or areas	Upper-middle-income countries or areas
Sweden						x			x	
Switzerland							x		x	
United Kingdom						x		x	x	
United States			x					x	x	
Venezuela (Bolivarian Rep. of)		x								x

► Figure A.1. Mismatches by gender and employment status, based on national definitions, in all 37 ISSP survey countries or areas



► Figure A.2. Mismatches by gender and employment status, based on ILO definition, in all 37 ISSP survey countries or areas





▶ 5.

5. Working time-related crisis response measures

5.1. Introduction

About a decade after the Great Recession of 2008/2009, with its well-known, in part dramatic, effects on the labour market and employment, the global economy has been shaken by a deep crisis for the second time this century. Unlike a decade ago, however, the starting point of this crisis was not of an economic nature, due to speculative bubbles on the financial markets or even crises in the real economy, but the result of the effects of the COVID-19 pandemic and the associated restrictions on economic and public life that were imposed in many countries to contain the pandemic. The resulting crisis was even more far-reaching and comprehensive than the previous financial crisis, as the response-measures implemented almost worldwide not only affected the economy and working life but also intervened and still continue to intervene deeply in the private lives of individuals and employees. As a consequence, the various measures led “to an economic shutdown on a scale not seen in peacetime since the Great Depression” (ILO and OECD 2020, p. 6).

Since, in addition to health protection measures, mobility restrictions and contact restrictions are among the most effective tools to combat the spread of the COVID-19 pandemic, so-called lockdowns were imposed in many countries in the first two quarters of 2020.¹⁹ Stores that did not cover everyday needs, restaurants, hairdressers and many leisure facilities were not allowed to open; industrial companies had to stop production because supply in the value chains no longer worked; public transport, individual mobility and freedom of travel were restricted; and schools and childcare facilities remained closed, in some cases for months. Both the supply of and demand for certain consumer goods and services collapsed and jobs were threatened or even lost.

However, not all countries, industries and employee groups were and continue to be affected to the same extent by the collapse of the economy. In a few countries, the pandemic was largely contained early in the second quarter of 2020, so that a stricter lockdown was not necessary or could be restricted to certain areas; in other countries, governments took the path of a long lockdown, with severe economic consequences, or had to introduce more lockdowns later on; and in a third group of countries, government measures remained weak or were only regionally implemented so as not to impose greater restrictions on economic life. In China, for example, there were broader lockdown measures in February and March, with relaxations starting in April; in France and Germany, such measures were introduced starting in mid-March and in the case of France extended until early June; in Argentina, stricter lockdown measures extended at intervals until August of that year. In Japan and the Republic of Korea, on the other hand, no severe restrictions on social and economic activities were necessary because in both countries a strategy of “testing, tracking and tracing” was successfully applied (ILO and OECD 2020), apart from locally restricted lockdown measures that had to be introduced depending on the pandemic situation.

¹⁹ Lockdowns in various forms have since been repeatedly imposed on a temporary and country-specific (sometimes region-specific) basis. What was in particular remarkable in the first two quarters of 2020 was the simultaneity and strictness of the lockdowns in many countries.

At the same time, countries are very unequally equipped with resources and opportunities to take effective and expensive measures to combat the pandemic. In particular, working-time instruments such as job-retention and short-time work or work-sharing²⁰ programmes require government funding, depending on how extensive and generous the associated benefits are. Telework,²¹ to cite another prominent example, is linked to the existence of a technological infrastructure of digital networks and equipment. Both instruments in turn are linked to a state bureaucracy that is able and willing to regulate and implement them; companies that want to retain employees in this way and use them productively; employment relationships in which such measures can be regulated for the bulk of employees; or the volume of qualified work that can be performed digitally. Such instruments therefore presuppose certain levels of economic and political development for the countries that enable them to develop and that successfully introduce such measures.

But even within countries, the degree to which they were affected varies greatly by the composition of sectors and the employment structure. While employment and income in many cases almost completely disappeared in sectors such as hotels and restaurants, the tourism sector or the event-management industry, and while the manufacturing industry in particular had to contend with a decline in orders, yet sectors such as the care, retail, logistics or pharmaceutical sectors saw a significant expansion in the demand for labour (Bellmann et al. 2020; Eichhorst et al. 2020). Still other sectors, including the majority of white-collar jobs, were only indirectly affected, since although the volume of work did not decline as a result of the crisis, nonetheless hygiene measures made it necessary to distribute work differently in terms of time (flexibilization of working hours) or to decentralize it (telework). In order to avoid contacts in the office, employees whose work permitted it were allowed to work remotely to a greater extent; companies such as Twitter and Microsoft even sent large proportions or even their entire workforce to the home office (Joho 2020, Spiegel-Online 2020). Other companies introduced rotating attendances or staggered work start-times and end-times to avoid employees arriving at the same time. Employees with caregiving responsibilities had to deal with the fact that office work schedules clashed with their children's homeschooling schedules. For parents of young children, matching their work schedules with their children's homeschooling schedules under these circumstances often proved elusive. This situation, which can be sketched here only roughly, led to a need for flexibility on a scale previously unknown, which could be controlled and accompanied in part by legal, collective bargaining or company measures but in many cases was also informal in nature.

Against the background of a once-in-a century pandemic and the resulting global economic crisis, this chapter of the report explores the following questions. Which working-time-related measures were used to cope with the COVID-19 pandemic? What effects did they have in terms of job security, working-time autonomy or work-life balance? What country differences can be identified? And to what extent did lessons from the working-time experience of the global financial crisis play a role in managing the crisis? These questions are examined in sections 5.3 and 5.4 below, in which we trace the measures of working-time reduction and the development of working-time flexibilization. Section 5.3 therefore deals with the spread of "classic" working time-related measures to safeguard employment, such as short-time work/work-sharing and job-retention schemes, overtime reductions and plant closures (compulsory leave), as well as similar measures of working-time reduction, with and without financial compensation. Section 5.4 deals with the use of flexible working hours, including the abolition of existing statutory working-time limits; the role of working-time accounts; the reinterpretation of life-course-related working-time

20 The use of the terminology with respect to "work sharing" or "short-time work" varies across countries. While in Europe the term "short-time work" is very common, in the United States, Canada and Japan the term "work sharing" is used. Regardless of the term used in a specific country, these measures are designed to maintain employment by reducing hours of work instead of resorting to layoffs.

21 Telework can be defined as using information and communications technologies (ICTs) to perform work from outside the employer's premises. Although telework can be performed from almost any location, it is typically performed either from a worker's home ("home-based telework", "working from home" or "home office") or on a mobile basis ("mobile telework", "mobile work" or "ICT mobile work").

measures such as elective working hours (Wahlarbeitszeiten); and telework as a combination of flexible working times and working spaces. Sections 5.3 and 5.4 are preceded by a short preface in section 5.2, which emphasizes the importance of working time as an instrument of economic crisis management and outlines the data situation concerning the development of working time during the COVID-19 crisis.

5.2. The use of working-time measures as crisis response

Hours of working constitute a central adjustment mechanism of economic cycles. While they tend to rise during upswings when demand for labour increases, they can be expected to fall during economic downturns and when demand for labour declines. The volume of these working-time variations in turn depends heavily on the size of the potential labour force for job creation in the labour market and the extent to which companies are willing to hire new workers. In a downturn, however, the decline in the working times of employees is likely to be closely related to whether and to what extent companies reduce employment. The stronger the employment effect, the lower the working-time effect will be. Finally, the flexibility of hours of work also plays a role, that is, the extent to which employees can extend the number of their hours of work upward and reduce them downward. It can be expected that the greater the degree of both upward and downward flexibility of hours of work, the greater the likely fluctuations in hours of work and the fewer the likely fluctuations in the number of employees.

The introduction and development of this type of short-term working-time flexibility instruments has long been the focus of companies and employees alike. In industrial production areas, in addition to the classic form of overtime work, working-time accounts, which enabled companies to react quickly and easily to fluctuations in the order situation, became increasingly widespread. In the service sector, various forms of flextime work with so-called core working hours became established. Since the turn of the millennium, however, and increasingly in the last decade, there has been a growing interest in long-term or life-phase-related working-time flexibility, that is, measures that take into account the different time requirements and availabilities of employees over the life course. These measures may be occasion-related (parental or care leaves, qualification phases) but may also take into account new life concepts and allow temporary time off or working-time reductions without explicit reasons (long-term working-time accounts; sabbaticals; the new *Brückenteilzeit* in Germany, which grants temporary part-time work with a right to return to the previous hours of work; and more recent collective bargaining agreements that allow employees to choose between a collectively agreed pay increase and time off). The more measures a company has already established, the more options it has to react spontaneously in times of crisis and the smoother the transition is likely to be. In this context, studies on home-office working during the pandemic, for example, show that the transition is faster and smoother when employees (or establishments) have had experience before the crisis (Frodermann et al. 2020).

In sum, companies have at least potentially a wide range of instruments at their disposal that enables them to respond to changes in work volume demands by adjusting personnel and/ or hours of work. As the following analyses will show, almost all of these flexibility instruments were used in the current crisis in one country or another, sometimes in a modified form and sometimes in combination.

However, this scope is sharpened and limited by both the political framework of working-time policy and institutional regulations. This is particularly true with regard to the question of limiting personnel fluctuations through regulations on protection against dismissal, collective agreements or company negotiations with interest groups. In countries such as the United Kingdom or the United States, in which these are weakly developed, the possibility is opened up for companies to rely on “hire and fire” strategies, while in countries with strong regulations, such as Germany and Sweden, working-time flexibility is likely to play a far greater role.

This also sets the framework for a possible political or collectively agreed promotion of employment protection through reductions in hours of work during the crisis, whether in the context of short-time work/work-sharing or in the context of collective bargaining agreements of the social partners to reduce hours of work. For companies in countries with weak regulations on employment protection and weak social partners, such measures are likely to be far less attractive than they are for companies in countries with stronger regulations, because the former always have the alternative of staff reductions. In addition, the way companies deal with this issue also depends on their skill structures, in particular on how abundant or scarce skills are on the labour market. In a context of higher qualifications and a scarce supply of labour, companies have a strong incentive to maintain employment by reducing the number of hours of work and making them more flexible, even when the volume of orders declines. The extent to which flexible individual working times can be used in such a context is also related to the degree of working-time autonomy of employees and the extent to which time credits on working-time accounts can be used for company purposes to reduce working times.

It is well known from the global financial crisis of 2008–2009 that the use of working-time measures in some countries contributed significantly to avoiding unemployment and maintaining employment (Kümmerling and Lehndorff 2014, p. 1):

It has been widely accepted that one major factor ... was the emphasis put on working time adaptations geared to buffer the impacts of a drop in demand on the labor market.

However, analyses also showed that new, innovative solutions for coping with the demands of the crisis were rare or were mostly used informally, if at all. In concrete terms, this meant that companies in countries where hire and fire practices were prevalent reacted to the slump in orders during the financial crisis with dismissals, while companies in countries with comprehensive (state) short-time work/work-sharing schemes resorted to them. Similarly, companies that had already had experience with working-time accounts to absorb fluctuations in orders used them by first reducing the credit balances on the accounts and/or allowing accounts to run into the negative. Often, several instruments were used at the same time to safeguard employment.

A key feature of the current economic crisis caused by the pandemic is that it hit the world of work without much warning or preparation. Therefore, regulations had to be formulated, introduced and implemented very rapidly. We therefore assume that the following observation remains valid (Kümmerling and Lehndorff 2014, p. v):

[I]n times of crisis, firms resorted first and foremost to flexibility instruments that had already been in their existing “tool kit” in the pre-crisis year. That is, the importance and nature of working time measures taken in the crisis obviously depend fundamentally on each firm’s established approaches to personnel flexibility in general, and working time practices in particular, with which they have become familiar under normal business conditions.

Since the origin of the current crisis, unlike that of the crisis in 2008–2009, was not in itself an economic crisis but rather one caused by non-economic factors (the pandemic), it could be argued that firms, states and employees and their representatives were forced to react more creatively and innovatively in order to keep their businesses afloat. This may have led to working time-related measures being used in companies that previously had little or no experience with working-time flexibility instruments.

However, at the same time the resources and conditions to revive well-known measures or to implement new measures are distributed very unevenly around the globe. Developed political economies – which can build on well-functioning state bureaucracies, democratic processes, formally regulated employment relationships and financial resources that can be mobilized by taxes or lending on global financial markets – can draw on much more leverage to safeguard jobs by short-time work/work-sharing measures or by flexible working-time arrangements than less developed economies with little financial room for manoeuvre and high shares of informal employment.

► Box 4. Scarcity of data

Given the far-reaching effects that the crisis caused by the pandemic exerted and continues to exert on the economy and the working lives of so many employees, it is surprising how little information is currently available about what is (or was) actually happening in companies in terms of working time.

In a review of working time-related measures at the company level during the great global economic crisis of 2008–2009, Kümmerling and Lehndorff (2014) had already noted that the available information on company working-time practices (with the exception of short-time work/work-sharing) was limited, especially for small and medium-sized enterprises (SMEs) and countries outside Europe. In a discussion of whether the lack of data was indicative of a lack of company practice or rather an artifact solely mirroring a lack of public interest, they finally concluded that (Kümmerling and Lehndorff 2014, section 9):²²

“there are strong reasons to believe that practice in working time related crisis-response measures has been poor, and research into this poor practice has been even poorer so far. This statement applies to research into the incidence of such measures, but even more so to research into their effects on firms’ performance beyond the evidence of imminent job protection”.²²

For the portrayal of the current situation, we drew on official country statistics to gain an overview of what is happening in the labour market (layoffs, new hires) and the economy (developments in the volume of orders, working-time developments). We also drew on the compilations of international organizations such as Eurostat, Eurofound, ILO and the OECD. Furthermore, we analysed the results of surveys conducted – often on an ad hoc basis – to examine the impact of the COVID-19 crisis on income, work, addictive behaviour and on, as well as the impact at the company level on the order situation, innovations and personnel measures. However, most of the data obtained has the common feature that it remains primarily at a high aggregate level (IAW 2021). When establishments report that they have expanded hours of work, what does that mean specifically? Have the hours of work of employees been simply increased or have operating hours been expanded? How was this implemented? Was overtime used? Were hours of work saved on accounts or were employment contracts increased? What role, if any, did works councils, shop stewards or other forms of workers’ interest representation on establishment level play in this regard? And what effects did these measures have on safeguarding employment? Those questions remain unanswered.

The same applies to flexible work arrangements such as telework, specifically working from home. While it is well known that flexible work arrangements were used in many countries and across industries to maintain workflow while mitigating the spread of the virus, little is known about how telework was actually implemented. This is particularly the case for establishments that also allowed their teleworking employees to deviate their working time from standard working hours (for example, 8 a.m. to 5 p.m.) because, for example, there were children to be cared for at the same time. How often was this used? And if it was used, at what times was work done?

22 This lack of knowledge about which working-time flexibility instruments are regularly used in companies also applies to non-crisis periods. For example, the topic of “existing instruments of working-time flexibility” was still dealt with in detail in the European Company Survey 2004–2005, but in the subsequent survey in 2009 the topic was only represented by one question and was not dealt with at all in the two subsequent surveys in 2013 and 2019.

► Box 4. Scarcity of data (continued)

To what extent were legal rest periods observed? And to what extent did working from home contribute to the avoidance of other personnel policy measures, such as forced leave (furloughs), the reduction of vacation days or the use of working-time accounts? The answers to these questions are of great interest to policymakers, practitioners and not least academics, as they help to assess which working time-related measures serve as sustainable human resources policy – that is, they result in the avoidance of redundancies and the retention of skilled workers in companies.

Given the many recommendations that can be found on government's, unions' and companies' websites referring to the possibility of flexibilizing working hours in order to deal with the necessity to minimize contact, as well as the simple fact that homeschooling, caring for small children and simultaneously working cannot be realized at the same time, it can be assumed that flexible working-time instruments in this crisis have often been used informally. This applies in particular to the situation in non-union or non-codetermined companies. It can also be assumed that there is often no great interest on the part of the company in making the practices used public – especially if they are granted informally and only to some (groups of) employees (Smyth, Cortis and Powell 2020) or are not in accordance with the law. However, there is also an indication that some establishments just do not know in detail to what extent working hours could be fulfilled by employees during the lockdown, either because they had no facilities for remote time-recording or they decided to suspend time-recording during this period, as was the case for example with the University of Duisburg-Essen in Germany.

Also, countries differ in the extent to which they make it possible for employees to temporarily reduce their hours of work or even take time off. In some countries, individual rights to temporarily switch to part-time or take leave already existed and could therefore be quickly applied to the new situation. As a result, however, these working-time reductions are not statistically recorded as "coronavirus pandemic measures" and remain effectively invisible to the researcher.

A final reason for this rather unsatisfactory data situation may also be the timing of the current analysis. At the time of preparation of this report, the crisis was only a little more than one year old, which is a rather short period for scientific publications. In addition, after intensive research activity in the first two quarters of 2020 and a third quarter that deceptively promised an economic upswing and a return to normality, the interest of companies in innovative working-time measures waned along with that of researchers. On the other hand, the pandemic-related measures that began to re-emerge in the fourth quarter of 2020 were, at least at first, much less drastic and far-reaching than those of the first two quarters and were often aimed more at reducing private contacts, while trying to keep businesses and schools open as much as possible. It was not until the middle and end of the fourth quarter of 2020 that restrictions comparable to those of the first two quarters of 2020 could be identified again.

In sum, all of the above reasons contribute to an overall situation that makes it difficult to depict working time-related events in companies beyond short-time work/work-sharing. Moreover, the statistical blindness towards these instruments leads to the fact that the crisis-preventing potential of these measures has been underestimated and therefore may not be called upon when needed.

5.3. Working-time reduction and job retention

5.3.1 Relevance of working-time reduction

The reduction in the number of hours of work is undoubtedly the most important effect that the COVID-19 crisis has had on working time, as a result of the lockdown measures introduced in many countries in the first wave of the pandemic in the second quarter of 2020 – and in the subsequent waves of the pandemic that reached many countries as of the fourth quarter of 2020 – to contain the spread of infections by contact restrictions, the closure of plants and economic activities or even curfews. These measures had repercussions on economic indicators such as production, demand and international trade and triggered a global economic crisis, during which reductions in hours of work and the decline of employment have been in a sense complementary consequences. In many countries, the reduction in hours of work was caused by rising unemployment or the withdrawal of informal employment from the labour market. This could be observed mainly in weakly regulated or less developed labour markets, but also in advanced economies such as the United States, where unemployment increased at the beginning of the pandemic and only decreased with a delay after the Government's ambitious relief plan was introduced. At the same time, there is also evidence that even in many advanced countries, women at least temporarily withdrew from the labour market or reduced their working times in order to reconcile care and job obligations (Collins et al. 2020; ILO 2021c). A different observation could be made for some countries from the group of developed industrialized economies. In these countries, primarily in the EU but also in many OECD countries outside its borders, reductions in hours of work were mainly based on state-funded programmes of short-time work/work-sharing or other forms of job retention. The aim of these provisions was to maintain employment levels as far as possible, despite the sharp decline in the volume of work. This section will first describe these programmes, their scope and their effects in more detail, before the scope is widened based on the information that we have about reduction of actual working times during the COVID-19 pandemic. The existence of these programmes is no coincidence, since some of them are based on long-established labour market policy instruments in individual countries. Above all, however, they follow the model of avoiding unemployment through short-time work/work-sharing, which had already proved its worth during the global financial crisis and attracted considerable international attention (Hijzen and Venn 2011; Messenger and Ghosheh 2013).

The fact that these measures did not serve as a global model for dealing with the consequences of the COVID-19 pandemic was due to three main factors. First, there were differences in the extent to which high infection rates and measures to shut down economic activities affected the economy. In countries in which, like some states in East Asia, the number of cases of the pandemic was kept low (at least initially), there was no need to finance reductions in hours of work because no major collapses in employment were observed, while in other countries there was a threat of a massive employment slump. Second, the structure of labour markets and the forms of employment played an important role, because measures such as short-time work only work in sectors of formal employment that are also embedded in the respective unemployment and social security systems. Informal and contractually unregulated employment relationships, on the other hand, fall outside the usual scope of such measures. In many countries this also applies to migrant workers, who are not covered by labour market and social security regulations, as the example of South-Eastern Asia shows (ILO 2021a). Third, the possibility of implementing such measures depends on the financial resources and creditworthiness of states, because government financing of working-time reductions is expensive and increases government debt – unless the funds can be raised through higher taxes, which in turn could hurt growth – and thereby the need to borrow on international financial markets and finance new debt. For these reasons, the concentration of this form of working-time reduction in developed industrialized countries is hardly surprising and is therefore of limited use as a model for countries with poorer economic starting conditions.

5.3.2 The financial crisis as a model

The current boom in state-funded reductions in hours of work discussed later in this chapter can be explained above all by the exemplary role it played as an instrument of labour market policy in overcoming the global financial market crisis about one decade ago. Here, it was countries such as Germany which, with the help of short-time work, were able to maintain significant proportions of their employment volume, especially in the industrial sectors that were threatened by drastic and abrupt falls in demand on the international goods markets; in some cases, these falls amounted to up to 40 per cent of pre-crisis levels. Not least because of this instrument (but also because of other forms of working-time reduction, such as the withdrawal of time from working-time accounts, the reduction of overtime and company agreements to reduce the number of weekly hours of work), hours of work were cut by approximately 40 hours per employee in 2009. Short-time work contributed to this by more than 13 hours (Fuchs et al. 2010). Although Germany's gross domestic product fell by about 5 per cent that year, the volume of employment remained virtually constant. Admittedly, this was also due to a slight shift in employment to the service sector, which was not affected by the crisis due to stable domestic demand. However, the reduction in hours of work arithmetically prevented a decline in employment of approximately 3 per cent (Herzog-Stein and Seifert 2010). This development was very different from many other countries, where employment fell sharply with the economic slump. For this reason, there has been talk of a German "job miracle" in international comparisons (Bosch 2011).

But Germany was far from being the only country to benefit from the use of short-time work/work-sharing during this crisis. In their comparative analysis, Hijzen and Venn (2011) found that among the 34 countries in the OECD, 24 countries used short-time work or comparable instruments during the global financial crisis; in 22 of them, either these regulations were newly introduced or existing regulations were expanded and adapted to the challenges of the crisis. An important distinguishing criterion of these schemes was the extent of the permitted reduction of hours of work: 15 countries set a lower limit for the reduction, ranging from 10 to 40 per cent of contractual weekly hours of work, while in the other countries weekly hours of work could also be reduced to zero. Most countries also presupposed agreements by the social partners in the companies and/or a justification of the economic necessity for this scheme, so that the share of state subsidies and the labour costs remaining with the companies differed significantly among countries, as did the employees' entitlement to earned income. This was also true for the maximum duration of benefits, which ranged from three months to two years or more; countries with short durations of short-time work were mostly more generous in the amount of short-time compensation benefits.

More important in the context of working-time effects, however, was the actual use of work-sharing/short-time work. Hijzen and Venn found that the highest shares of employees on short-time work in 2009 were observed in Belgium (just under 6 per cent), Türkiye (4 per cent) and Italy, Germany and Japan (about 3 per cent each). The manufacturing sector was the main focus of short-time work; in a comparison of these and other countries, about 9 per cent of employees were on short-time work in this sector in 2009. This was followed at a considerable distance by the construction sector, where the share was just under 3 per cent. However, countries differed greatly in terms of the reductions in hours of work associated with short-time work. Whereas in Spain, Finland and Norway this was about 90 per cent or more of full-time hours of work, the reduction in countries listed with high usage during the global financial crisis was significantly lower, at about 40 per cent in Belgium, approximately 30 per cent in Türkiye and just under 30 per cent in Japan and Germany.

5.3.3 Regulation of job retention during the COVID-19 crisis

The use of short-time work/work-sharing during the financial crisis served as a model for dealing with the effects of the COVID-19 pandemic in many countries of the OECD, especially those in the EU. Wage subsidies or subsidies to reduce hours of work have been implemented in many more countries; however, job-retention schemes in the stricter sense of the word seem to have been largely confined to OECD Member States (Gentilini et al. 2022). Of the 34 OECD countries, 23 were able to use an existing short-time work scheme or another form of job retention, while in other countries, including Commonwealth of Nations countries such as Australia and New Zealand, as well as the Netherlands and Poland, such schemes were newly introduced following the onset of the crisis. In the other OECD countries, existing provisions on short-time work were adapted to the new challenge of the pandemic and the options for use and benefits were expanded, in some cases significantly (OECD 2020). This applies especially to the access and coverage of short-time work/work-sharing, which were accordingly expanded in 20 OECD countries (OECD 2020; Müller and Schulten 2020). Access thresholds were lowered in many countries, with regard to proof of a difficult economic situation of the companies; required minimum reductions in hours of work; the industries or sectors in which companies are entitled to claim short-time work; or the effort involved in procedures for applying for short-time work. In 9 countries, the option of short-time work was extended to include non-permanent workers, that is, temporary employees, temporary agency workers and self-employed workers. In 15 countries, the scope and generosity of the benefits were increased, either through higher minimum benefits (replacement rates) for the workers or by reducing the costs for companies, for example by lowering company contributions to social security.

However, there were notable differences between schemes. One important difference was the volume of allowances granted by the regulations. In the European countries, the *volume of allowances* ranges from 50 per cent to 100 per cent of the previous remuneration. Allowances amounting to 100 per cent of previous remuneration are paid in the Netherlands and Denmark, and amounting to 50 per cent in Poland. In some cases, the regulations also provide for ranges of allowances based on the amount of the original salary. In Austria, allowances are graded from 80 per cent to 90 per cent – or the duration of the entitlement; in Germany, they range from 60 per cent to 87 per cent of the original salary, depending on the duration of short-time work/work-sharing and marital status of the employees; and in Czechia, they are based on the reasons for work-sharing (Müller and Schulten 2020). Some regulations also draw on the level of national minimum wages as a lower limit for the amount of allowances. At the same time, reference ceilings for maximum allowances are also set, either as an absolute value or as a maximum amount related to the minimum wage or the national average wage (Müller and Schulten 2020).

Another important distinction between the forms of job retention is that between *short-time work/work-sharing*, in which reduced hours of work – with or without social security contributions – are taken over by the state either partially or completely, and the *subsidization of wages via ad hoc wage subsidies*, regardless of the actual reduction in hours of work. In the anglophone countries Australia and New Zealand, as well as in Denmark, the second model was favoured. Here, government subsidies can be used by firms to keep non-standard workers employed or rehire workers who are unemployed. In the Netherlands, which has changed its traditional short-time work model to a wage subsidy scheme, government wage subsidies are provided in proportion to the decline in sales (up to a decline of 90 per cent), with workers kept on at 100 per cent of their earnings. In this model, within the limits of the wage subsidy companies are not forced to pay a share of the costs and are not required to provide proof of hours worked. At the same time, this increases the incentive to keep employees working as many hours as possible (OECD 2020).

Two further distinctions can be made that have a more or less direct impact on the volume of working-time reductions associated with short-time work. First, short-time work schemes and other job-retention schemes can be distinguished according to whether they refer to the financing of a reduction in hours of work, as is traditionally the case in short-time work/work-sharing schemes, or whether they refer to a

state of non-working. However, this distinction is not entirely clear-cut, because a reduction to zero hours of work may also be permitted in some (but not all) short-time work schemes. This is the case in Germany, for example, while in Austria at least 10 per cent or in Sweden at least 40 per cent of normal working hours must be worked and proven (Müller and Schulten 2020). Second, the range of the maximum duration for which short-time work can be approved varies widely, from just one or a few months to as much as a year or more. Long periods of short-time work of one year or more exist in Finland, France, Germany (recently extended to two years) and Switzerland. Some countries also provide for the possibility of extending the duration, including Austria, the Netherlands, Poland (from three to six months), Italy (from three to 12 months) and Sweden (from six to nine months). The countries with the most generous measures – the Netherlands and Denmark – have a maximum duration of only three months.

Finally, an important difference between national regulations is the role that *collective bargaining* by the social partners plays in the implementation of short-time work (Müller and Schulten 2020; Konle-Seidl 2020). In some countries with strong systems of collective bargaining, the central regulations on short-time work have been set not by governments but in the framework of collective bargaining agreements at the national level. These countries include the Scandinavian countries Denmark, Norway and Sweden, as well as Austria. In some other countries, collective bargaining agreements have been concluded to supplement or extend regulations on short-time work. These countries include Germany, where increases in allowances for short-time work have been negotiated for individual industries – concentrated mainly in the manufacturing sector – that are either paid directly by the companies or achieved by splitting up collectively agreed one-off payments. In Germany and France, there are also provisions in company agreements in which companies commit themselves to topping up short-time allowances. In many countries, the agreement of employers and employee representatives at company level is also a prerequisite for granting short-time work. Box 5 gives an overview of these regulations in selected countries.

► **Box 5. Short time work/work-sharing and job-retention schemes in selected countries (OECD 2020; ETUC 2020)**

Austria: *maximum duration:* 24 months; *eligible:* all employees except workers of public institutions; *allowances:* 80 to 90 per cent of net wages, depending on former wage level, with full payment for all hours reduced.

France: *maximum duration:* 12 months; *eligible:* all employees with an employment contract; *allowances:* 70 per cent of gross wages, with cap of 4.5 times the hourly minimum wage and with full payment by the state for all hours reduced.

Germany: *maximum duration:* 12 months (subsequently extended to 24 months); *eligible:* all employees with an employment contract, including temporary agency workers; *allowances:* 60 to 67 per cent (with children), 70 to 80 per cent from the fourth month onwards, 80 to 87 per cent from the seventh month onwards (net wages), with full payment by the state for all hours reduced, including social security contributions.

Italy: *maximum duration:* 12 months (as extended); *eligible:* all employees; *allowances:* 80 per cent of gross wages, with caps of €998 for wages up to €2,159 and €1,199 for wages above that level.

Japan: *maximum duration:* up to 28 months; *eligible:* all employees, including non-regular workers without social security contributions and workers in SMEs that have not applied for the scheme; *allowances:* 100 per cent of wages in SMEs and 80 per cent of wages in larger companies.

United Kingdom: *maximum duration:* 3 months (subsequently extended); *eligible:* all employees designated as furlough workers by their companies, except public-sector workers; *allowances:* 80 per cent of wage costs, with cap of £2,500.

The widespread use of short-time work and the expansion of its uses and benefits in Europe can be explained not least by the financial support for national short-time work schemes organized by the EU through the Support to mitigate Unemployment Risks in an Emergency (SURE) programme. Within this framework, the EU made available to Member States €100 billion in the form of loans as financial assistance for the implementation of short-time work programmes, which was raised as a loan on the financial markets. Unlike other European loans, SURE loans were not subject to the European Stability Mechanism. At the end of 2020, the majority of the loan volume – more than €90 billion – had already been disbursed to Member States, with the largest volumes going to the recipient countries Italy (more than €27 billion) and Spain (more than €21 billion).

Although job-retention schemes were confined to OECD countries, mainly for the reasons cited above, there are also countries outside the circle of the developed political economies who introduced such schemes in the one way or the other. One such country is South Africa, where job-retention policy in the form of wage subsidies served as a core component of the Government's economic policy response to the pandemic; about 8 per cent of the Government's fiscal package in the amount of 500 billion South African rand was to provide wage support to affected workers (Köhler and Hill 2021, p. 2). Finally, an unprecedented variation of working-time reduction occurred in April 2020 in the Russian Federation, where the concept of "paid days off" was introduced. This concept, which was previously unknown in Russian labour law, was applied from 30 March to 30 April 2020, when all enterprises in the Russian Federation had to suspend or restrict their activities (ILO 2021e).

5.3.4 Job-retention provisions in practice

The regulations on short-time work/work-sharing and other job-retention measures have been used to a great extent in most of the countries with these programmes and have therefore contributed to a significant reduction in hours of work. This is particularly true when compared with the extent of use of short-time work during the global financial market crisis. During the first wave of the COVID-19 pandemic and in the wake of the more or less comprehensive lockdown measures taken by many governments, applications for short-time work were submitted by companies with about 60 million employees in the OECD Member States. Specifically, the percentage of employees reflected in these applications was 66 per cent in New Zealand, about 55 per cent in France, about 45 per cent in Italy and Switzerland, 30 per cent or more in Austria, Germany, the United Kingdom and Portugal, and 20 per cent or more in the Netherlands, Australia and Belgium (OECD 2020). However, the figures for the take-up of short-time work in May 2020 were smaller than the applications, although still at a high level. In Europe, in many countries the take-up of short-time work was about 30 per cent of employees or more; 44 per cent of employees in Italy were covered by short-time work, 35 per cent in Austria and 33 per cent in France (Eurofound 2021).

A comparison of the figures in Germany and France reveals important variations and developments in terms of the economic sectors affected (OECD 2020). For example, in May 2020 about 19 per cent of employees in Germany and 33 per cent of employees in France were on short-time work. The corresponding figures at the height of the financial crisis were 1 per cent for France and 4 per cent for Germany. Without being able to quantify the exact working-time effect associated with these measures, this nonetheless suggests a significantly greater extent of working-time reduction in both countries during the COVID-19 crisis. At the same time, the distribution of employees on short-time work has also shifted significantly among the sectors. During the financial market crisis, the use of short-time work was concentrated in the manufacturing sectors. In both countries, the share of employees on short-time working in these sectors exceeded 80 per cent. The picture of the use of short-time work in the COVID-19 pandemic is quite different. Here, the share of employees in the manufacturing sector on short-time work was less than 20 per cent in France and about 25 per cent in Germany, while the trade sector, at just under 20 per cent in both countries, or business-related services, at over 40 per cent in France and

about 37 per cent in Germany, formed the main focus of short-time work. This distribution shows the breadth of the lockdown measures, which affected companies in many other service sectors just as much as production companies. As a result, the share of short-time work in the manufacturing sector now roughly corresponds to the share of all employees in this sector.

Employment-retention schemes were also implemented in countries outside the OECD: 26 countries in Asia and the Pacific have implemented policy measures to protect employment in one way or the other and many of them have made it mandatory for companies to maintain existing employment relationships in order to receive benefits (ILO 2021b, p.3). However, the support was usually much more limited and selective, due to fiscal constraints. In many cases, the benefits were restricted to employees from the formal sector, certain types of companies such as SMEs or certain industries. Schemes with a duration of more than six months were exceptional and informal and migrant workers were largely excluded. This was the case also in South Africa, where the scheme led to an 18 per cent increase of the probability of remaining employed in the same job in June 2020 (Köhler and Hill 2021, p. 26).

However, working-time reduction as a result of state or social partner collective regulations are not the only short-time work/work-sharing measures. There are other measures that may contribute to the reduction of working time, such as the withdrawal of accumulated hours of work from working-time accounts, taking leave days or various forms of collective reduction of working times agreed in collective bargaining or other agreements by the social partners. The advantage of these forms of working-time reduction may be that there are no financial losses or at least fewer losses than those connected with short-time work. The advantage for the employer is that in a subsequent economic upswing, employees have taken their holidays already or have withdrawn their working-time savings from their accounts so that the capacity of personnel is higher. At the same time, the employees to some degree lose the autonomy to decide for themselves how to make use of their overtime hours.

In many countries, there is a need for both employers and employees to agree to the use of holiday days or time credits for job security. In addition, in some countries there are also time savings accounts, especially long-term accounts, whose use to cushion fluctuations in orders is excluded by law, such as the so-called time value accounts or *Zeitwertkonten* in Germany (Seifert, Kümmerling and Riedmann 2013). As was the case in Hungary with regard to working-time accounts, Austria also overrode the need for employee consent in a second COVID-19 pandemic law and allowed the use of the entire remaining leave credits of the previous year and up to two weeks of the then-current year (2020) to cope with the crisis. In total, employers were allowed to use up to eight weeks of employees' time off, including accrued time credits (Eurofound 2020c). In Hungary, a government decision allowed companies to debit their working-time accounts without requiring the consent of the collective bargaining partners for a period of up to 24 months instead of the previously allowed 4 to 6 months (Eurofound 2020d). According to Eurofound, about 50 companies, mainly from the manufacturing sector, have made use of this provision. However, the decree was criticized by trade unions as it tied workers to the employer for a period of up to two years and the workloads to compensate for the time debt were considered unreasonable (Eurofound 2020d):

“According to the union Vasas the consequence of this scheme was that after business was back to normal “working time could grow to 10-12 hours a day, with no paid overtime and workers could only have one Sunday off in a month.”

In Germany, according to calculations by the Institut für Arbeitsmarkt und Berufsforschung (IAB) (Frodermann et al. 2020) based on an online survey, the number of hours of work per week fell by 5.8 hours or about 15 per cent, from 37.9 hours in the previous year to 32.1 hours during the lockdown in the second quarter of 2020. According to the survey, hours of work per week among those working

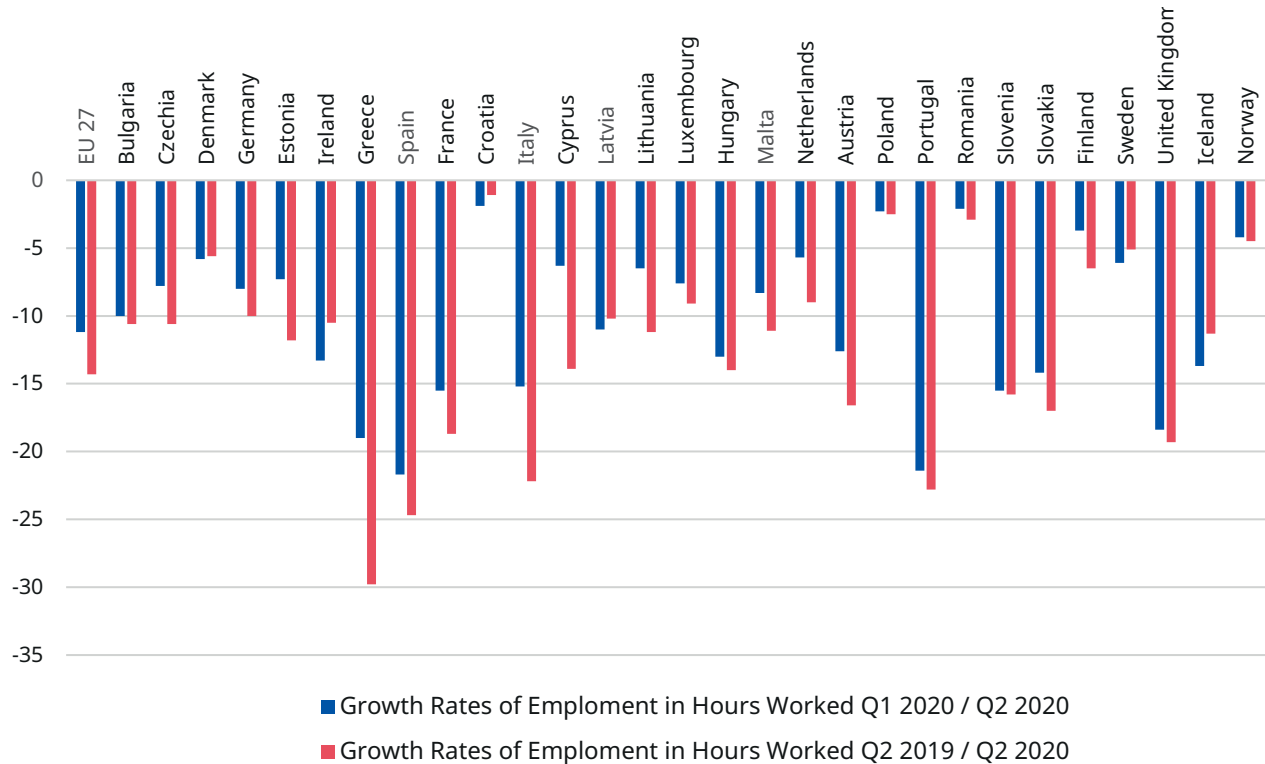
short-time actually fell by 20 per cent on average. In addition to short-time work, the decline in hours of work can be explained by other factors: namely, a fall in the proportion of employees working overtime from 60 to 32 per cent, as well as the reduction of hours of work accumulated on working-time accounts or the withdrawal of vacation entitlements. Some 55 per cent of respondents said they had also done this on the instructions of their employer.

5.3.5 Working-time reductions compared

This poses the question of what the findings on the development of actual hours of work look like and how reductions in hours of work due to short-time work fit in the picture. First of all, it has to be stressed that in a global perspective the relationship between working-time reductions and short-time work is relevant only in some world regions and only for more developed political economies. According to ILO's COVID-19 Monitor (ILO 2021c), in 2020 about 8.8 per cent of the hours of work lost worldwide were lost because of the pandemic. This loss corresponds to 255 million full-time equivalents (FTEs) and was four times greater than during the global financial crisis. It was especially high in the second quarter of 2020, at 18.2 per cent of total hours of work. Half of the total hours-of-work losses were employment losses, the other half were hours-of-work reductions within employment. Within the employment losses of 114 million jobs, 33 million workers shifted to unemployment and 81 million to inactivity and a retreat from the labour market. The distribution of losses is rather different when considered by region. Employment losses were the lowest in Europe as a result of job-retention schemes; here losses mainly took place as working-time reductions. In Latin America, on the contrary the change into inactivity was the dominant form of working-hour losses as many workers from the informal sector retreated from the informal labour market (ILO 2020a). In East Asia, working-time losses varied according to the weakness of employment-retention schemes; the weaker the schemes in terms of duration and coverage, the higher the job losses (ILO 2021b). For 2021, the ILO projected a further reduction of hours of work worldwide, in that total hours of work will be 4.3 per cent below pre-pandemic levels (fourth quarter of 2019), the equivalent of 125 million full-time jobs, with prospects for a modest recovery from the fourth quarter of 2022 onwards (ILO 2021c).

For Europe, the reduction of hours of work in the wake of the COVID-19 pandemic can be analysed comparatively using two data sources. One key source is Eurostat's estimates of employment growth in hours worked (Eurostat 2020). According to these, in the second quarter of 2020 the gross national product in the countries of the EU decreased by 11.4 per cent compared to the first quarter of 2020 (and by 13.9 per cent compared to the second quarter of 2019), whereas employment decreased by only 2.7 per cent (and 2.9 per cent compared to the second quarter of 2019), with the largest employment decreases in Spain (-7.5 per cent) and Ireland (-6.1 per cent). In the EU's two largest countries, France and Germany, employment declined in the second quarter of 2020 by 2.6 per cent and 1.4 per cent, respectively, compared to the first quarter of 2020. The decline in employment in terms of hours worked was far greater, which suggests the effectiveness of the reduction in hours of work through short-time work. On average in the 27 EU Member States in the second quarter of 2020, the decline in employment amounted to 11.2 per cent compared with the first quarter of 2020 and 14.3 per cent compared with the second quarter of 2019. The decline in employment relative to the first quarter of 2020 was most pronounced in Spain (21.7 per cent) and Portugal (21.4 per cent) and was also strong in France (15.5 per cent), while it was below the average in Germany (8 per cent) (see Figure 43).

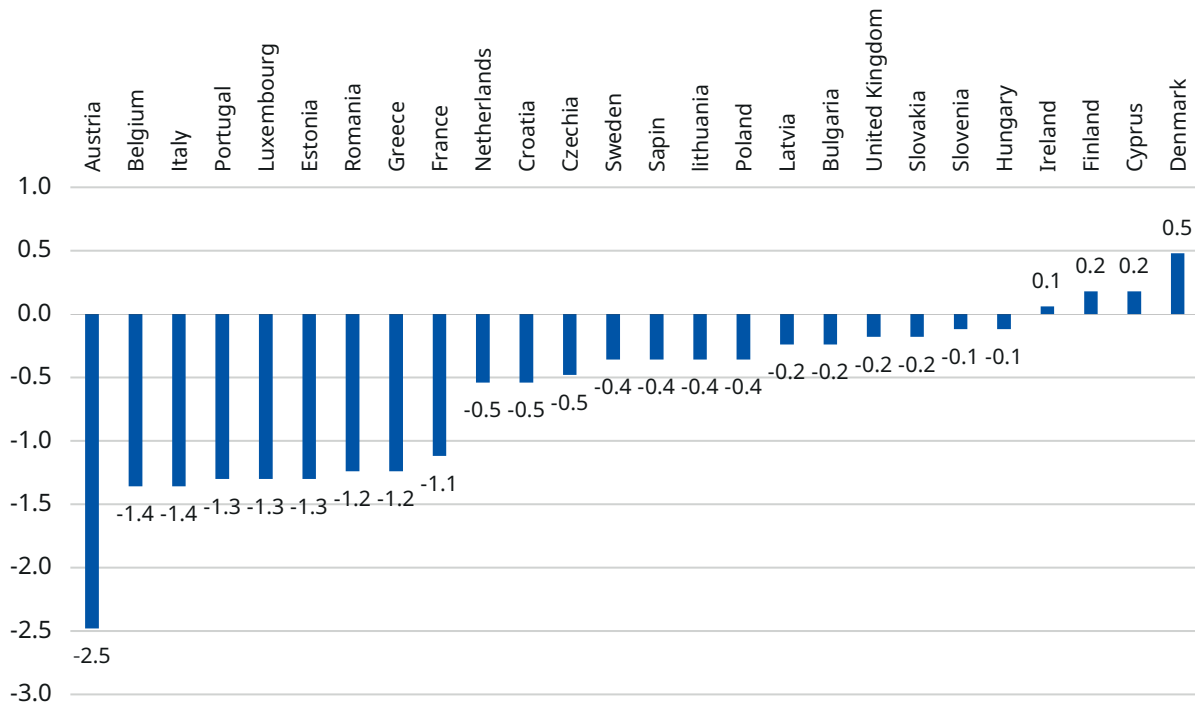
► Figure 43. Growth rates of employment in the EU (in hours worked)



Source: Eurostat, Quarterly National Accounts.

While these data on hours of work in EU countries were calculated from the development of employment figures, the data from labour force surveys refer directly to information provided by respondents about their hours of work. Based on this data, initial calculations have been made to compare hours of work in the second quarters of 2019 and 2020 (ETUI 2020). According to these calculations, actual hours of work per week decreased most in Austria, with decreases of 2 hours and 48 minutes per worker, followed by Belgium, Italy and Portugal, with decreases of about 90 minutes per worker; France, with decreases of about 70 minutes per worker; and Sweden, Spain and Poland, with decreases of about 30 minutes per worker (Figure 44).

► Figure 44. Change in hours of work per week, second quarter 2019 to second quarter 2020, EU countries, in hours and minutes



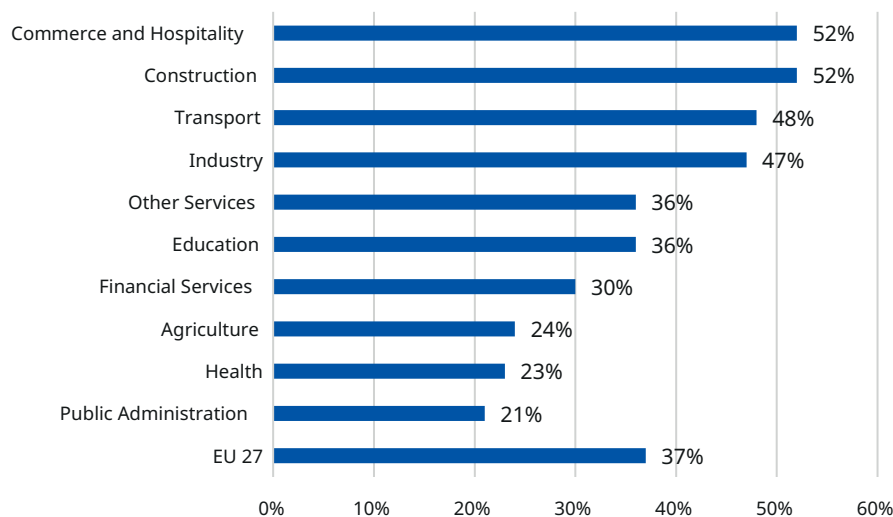
Source: ETUI (2020).

To a large extent, these differences can be explained by the length and scope of the lockdowns and other restrictions on economic activity imposed in the EU countries. While in Spain, Portugal and France lockdown measures were effective well into the second quarter of 2020, in Germany they were of shorter duration and were relaxed earlier. A further indication of the use of short-time work in the Eurostat data is provided by productivity figures, according to which labour productivity per person in the EU fell significantly by 12 per cent compared with the second quarter of 2019, while productivity per hour worked remained in positive territory. This is an indicator that companies performed “labour hoarding”, that is, they used short-time work to keep workers employed during the lockdown. The decline in hours of work affected women slightly more than men; in the first quarter of 2020 women’s hours of work decreased by 5.2 per cent compared to the fourth quarter of 2019, while men’s hours of work decreased by 4.9 per cent. This suggests that service sectors such as the retail sector that have high proportions of female employees were heavily involved in the lockdown. However, another interpretation of the data is also possible. For example, there are indications that the lockdown led to a retraditionalization of gender roles and that women took on more homeschooling tasks in parallel to their existing gainful employment. This double workload may also have led to a greater reduction in women’s hours of work (Kohlrausch and Zucco 2020).

A second data source that can be consulted for the European comparison is an online survey conducted by Eurofound in two waves in the second quarter of 2020 (Eurofound 2020b). According to this survey, in the first wave in April just under half of the respondents had reduced their hours of work compared to before the crisis; in the second wave in June, this remained true for 37 per cent of respondents. The reduction in hours of work was significantly less pronounced for employees in home-based telework (also known as the home office), at 28 per cent of respondents, than for employees working at the company or other locations, at 38 per cent of respondents. Conversely, home office employees were also more likely to report longer hours of work (35 per cent compared to 21 per cent). Among the larger

EU countries, the proportion of respondents who reported working-hours reductions was particularly high in Italy, Spain, Poland and France, at more than 40 per cent of respondents. Germany ranked in the middle of the distribution, at 35 per cent, while the Netherlands, Sweden and Denmark had significantly lower shares of respondents with working-hours reductions, at about 20 per cent, which is likely due to the fact that they had the highest shares of total telework – including home-based and mobile telework – in the EU before the pandemic (Gschwind and Vargas 2019). This survey also reveals considerable differences by sector. According to the survey, the shares of respondents with reduced hours of work are highest in the commerce, hospitality and construction sectors, at more than 50 per cent, followed by the transport and industry sectors, at just under 50 per cent. At the bottom of the scale are the health and public administration sectors, at approximately 20 per cent (Figure 45).

► Figure 45. Decrease in hours of work by sector (EU, in %)



Source: Eurofound (2020b).

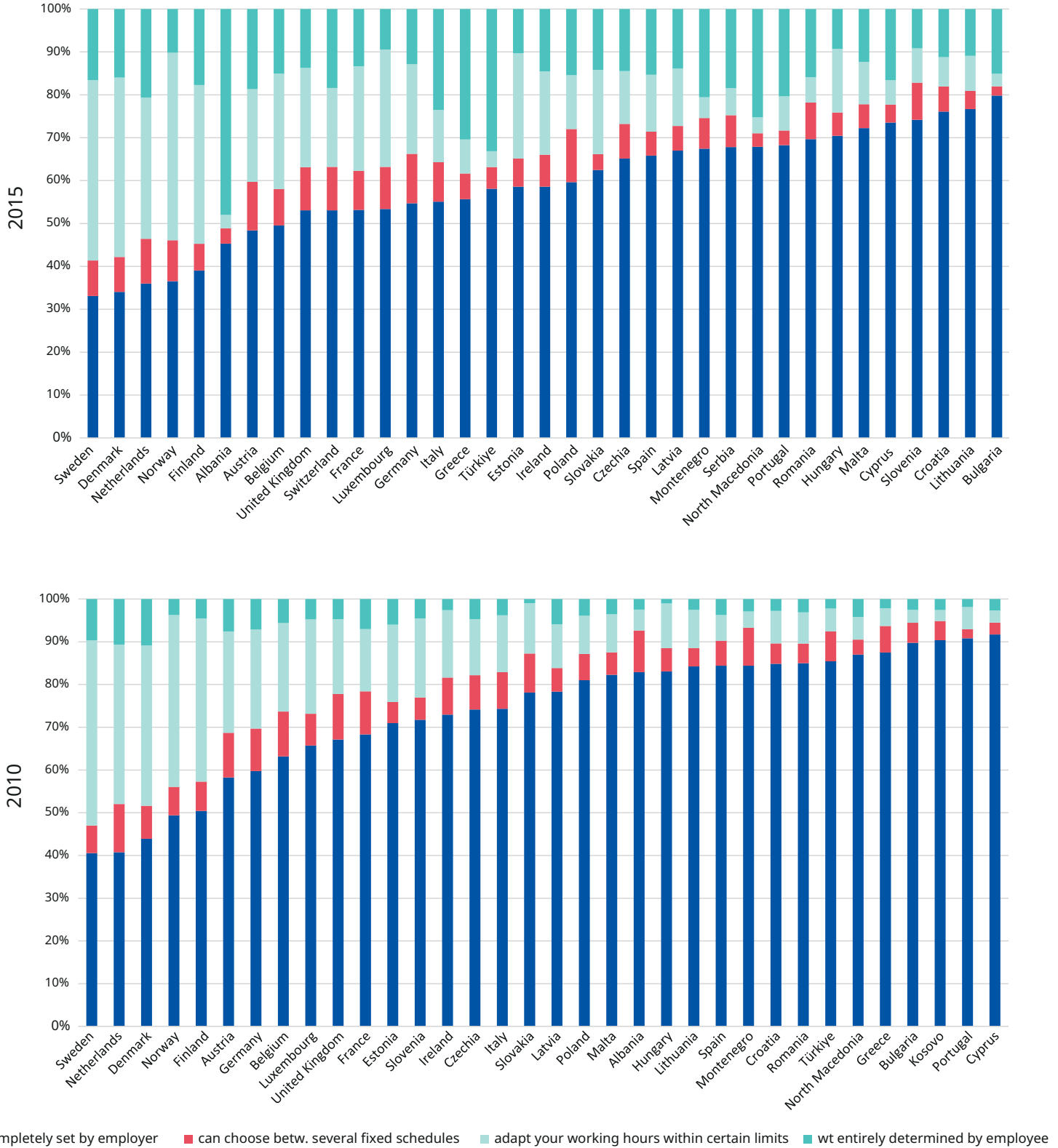
In addition to the comparative data presented, turning the gaze towards single countries can provide complementary or new insights into working-time reductions. In the first quarter of 2020, the decline in hours of work was very severe in Mexico (about -40 per cent), Türkiye (about -35 per cent) and Canada and the United States (more than -20 per cent)(ILO and OECD 2020).

In a survey conducted in Japan, nearly 27 per cent of respondents reported that their workdays and hours of work had been reduced (Japan Institute for Labor Policy and Training 2020). The main areas of focus by sector were accommodations and restaurants, with 60 per cent of respondents; education with about 40 per cent; services with about 37 per cent; and transport, with just over 31 per cent. The employee groups of part-time and fixed-term employees, with over 37 per cent, and posted or dispatched workers, with just over 36 per cent, were affected more than average and were accordingly the employees with the lowest incomes. According to this survey, working-hours reductions were based on a reduction in overtime for just under 14 per cent of respondents in full-time employment and on short-time work for just over 12 per cent (Tomohiro 2021). In the United Kingdom, the actual hours of work per week of full-time employees fell from about 37 hours at the beginning of 2020 to just over 31 hours in the period March to May and 30.7 hours in the period May to July 2020 (United Kingdom 2020). In Germany, according to calculations by the IAB based on an online survey, the number of hours of work per week fell by 5.8 hours or about 15 per cent, from 37.9 hours in 2019 to 32.1 hours during the lockdown in the second quarter of 2020 (Frodermann et al. 2020). Hours of work among those in short-time work actually declined by 20 per cent on average. In addition to short-time work, the decline in hours of work can be explained by other factors, namely, a fall in the proportion of employees working overtime from 60 per cent to 32 per cent per cent; the reduction of hours of work accumulated on working-time accounts; and the withdrawal of vacation entitlements. Some 55 per cent of respondents said they had made these adjustments on the instructions of their employer.

5.4. Use of working-time flexibility measures during the COVID-19 crisis

The supply of flexibility-related working-time instruments and thus also the possibility of reacting quickly and without major friction losses to unforeseen time requirements has increased significantly in the last decade, at least in Europe (Figure 1). Although in the short time of only five years the share of employees without any working-time autonomy has decreased in all but one of the countries surveyed, the share of employees who report that they have full working-time autonomy has increased very sharply. The data also show that there is a stark variation among countries with regard to the discretion enjoyed by employees. By and large, employees in the northern countries and the countries of the former EU-15 report more, while employees in the central eastern part of Europe report less flexibility with regard to the arrangement of their working time. Unfortunately, no cross-country comparative information on life-phase or long-term working-time measures is available. However, as shown in sections 5.4.1 and 5.4.2 below, both short-term and long-term flexibility instruments have the potential to maintain employment and both have been used in the COVID-19 crisis.

► Figure 46. Share of employees with no and several degrees of working-time autonomy, 2015 (upper panel) and 2010 (lower panel)



Source: Eurofound, European Working Conditions Surveys, own analyses.

Our starting hypothesis is that short-term flexibilization measures played a crucial role during the crisis. While measures such as short-time work secured the income of employees in severely affected industries, the use of short-term flexibilization measures in others enabled orders received to continue to be processed. However, at the time of preparation of this report, systematic studies of the extent to which measures were used are scarce and often only implicitly derivable. Also, as described above, working time during the lockdown may not have been properly recorded in any case, due to the fact that for employees who switched to telework no suitable devices for time-recording existed or time-recording was officially suspended. The following analysis is therefore limited to the results of selected surveys and illustrative case examples. In this context, an analysis of EU-wide policy measures for March and April 2020 alone came up with more than 500 measures to mitigate the negative impact of the pandemic “on businesses, workers and citizens” (Eurofound 2020a, p. 2), of which 13 per cent were targeted at employment protection and retention. Among those measures, about 70 per cent focused on short-time work and similar outcomes, about 20 per cent on changes to dismissal law or employment protection legislation, 6 per cent on working-time flexibility, about 3 per cent on wage flexibility and 2 per cent on other outcomes (Eurofound 2020a, p. 12).

► **Box 6. Relaxation of statutory working-time limits (maximum daily and/or weekly hours of work, rest periods, overtime)**

Not all sectors were equally affected by the slump in demand, as mentioned above. On the contrary, there was even a boom in labour demand in some individual sectors (such as the logistics, nursing²³ retail sectors). To address this and increase flexibility (while respecting the need for infection protection), existing regulations in some countries were supplemented by the relaxation of prevailing working-time standards. These standards differ in international comparison. The legal maximum working time in the EU, as in many other countries outside Europe, is 48 hours per week. There are also common rules for rest periods and vacations, which are laid down in Directive 2003/88/EC. Specific regulations also apply in individual Member States, but they remain within the framework of the Directive, which provides that each employee is entitled to a minimum rest period of 11 consecutive hours; a break must be granted after 6 hours; one day off (exactly 24 hours) must be granted for each seven-day period; the maximum hours of work per week of 48 hours, including overtime, cannot be exceeded; and the employee is entitled to a minimum paid annual leave of four weeks.

Several EU countries introduced temporary exceptions to this working-time regulation during the crisis. However, these exceptions did not apply to all sectors of the economy but were concentrated on sectors that were deemed critical for the continuity of economic and social life. In Germany, Austria and France, the new regulations allowed for an increase in hours of work per day from 10 to 12 hours and a reduction of the minimum rest period from 11 to 9 hours. Also, the ban of Sunday work was temporarily relaxed (Eurofound 2020a, pp. 18–19; Reich 2020). Moreover, extensions to existing overtime regulations were granted in several EU countries, for example in Finland, Greece, Portugal and Slovenia, which often meant that, on a temporary basis, the employer did not need the consent of the employee for overtime work (Eurofound 2020a, pp. 18–19).

In November 2021, due to a new peak of COVID-19 cases, the state of Saxony in Germany again allowed temporary exemptions from the Working Hours Act for the medical and nursing sector, the vaccinations sector and the crematoria sector (Germany 2021).

23 In Canada, for example, 26 per cent of nurses worked overtime in April and May 2020, while the average number of overtime hours worked increased compared to 2019 (Carrière et al. 2020).

5.4.1 Examples of the use of short-term oriented working time-related flexibility instruments during the COVID-19 crisis

Illustrative examples of how short-term working time-related flexibility instruments have been used on the “shop floor” are rare. However, it is evident from company surveys that they have been used. For instance, when the IAB surveyed more than 1,700 companies of various sizes and from different sectors in Germany on their crisis response in terms of personnel policy measures,²⁴ 32 per cent reported the use of vacation days; 19 per cent reported reduced existing working-time accounts; 16 per cent reported other measures of working-time reductions, with and without wage compensation; and 13 per cent reported that time credits had increased. On the other hand, 9 per cent of companies reported that they had expanded their working time. While 23 per cent of companies had introduced telework and 17 per cent had extended existing home-based telework schemes, dismissals of temporary workers or the retention of trainees played only a minor role (Bellmann et al. 2020).

To cite another survey example, working-time measures in Canada were aimed primarily at parents. Nearly 60 per cent of companies reported providing or planning to provide special measures for parents who could not work remotely and who had to deal with closures of schools or daycare facilities. According to Statistics Canada (2020), about 42 per cent of these companies granted or were planning to grant parents the possibility of changing their schedules; more than a quarter of them (27.5 per cent) allowed or were planning to allow parents to telework/work remotely; and close to a quarter of them (23.7 per cent) allowed or were planning to allow parents to temporarily switch to part-time work. Other measures mentioned included parents’ assignment to alternate tasks that could be fulfilled outside normal business hours; the creation of weekend, evening or night shifts to provide more flexibility for parents; and the offer of extended leaves of absence with reduced pay or no pay at all.

In many places, flexibility options at the company level have been supported by legal regulations or at least the publication of guidelines. In order to avoid overcrowded public transport, for instance, the Transport Ministry of Singapore released guidelines that require employers to allow their employees to work from home in the morning so that they can travel to the office during non-peak hours of the day (Bose 2020). Similarly, the Sri Lankan Government recommended making working hours more flexible to avoid crowded office spaces and public transportation; however, the actual implementation of the policy was at the discretion of employers. The guidelines were somewhat more specific for government agencies, which were not only encouraged to work rotating shifts but were also given details on how they might be staffed (ColomboPage 2020). New Zealand (2020) provided guidelines for employers to legally consider in good faith requests from employees to change work arrangements, place, hours or days. Also, a survey of the situation of enterprises in India conducted in three different states showed that nearly one out of ten enterprises has used flexible working hours in order to cope with the impact of the pandemic (ILO 2021d).

Guidelines on how to organize working time in the context of the pandemic can also be found on many public service internet sites. Again, this newly granted working-time discretion is often directly aimed at parents or employees with other care commitments.

- ▶ With the expressed intention of enabling the maintenance of contracted working time, employees with care responsibilities at the University of Washington were offered a so-called toolkit of working-time arrangements. Explicitly mentioned working-time measures included an uneven distribution of hours of work across the week, compressed workweeks (for example, ten hours per day/four days per week), as well as a spread-out work week (distributing the week over six or seven days and various deviations from the standard working-time frame (8 a.m. to 5 p.m.)). No information is available on how often a change of working time has been requested (University of Washington 2020).

²⁴ Short-time work was not included in the survey.

- ▶ Similarly, the University of Nebraska introduced a flexible work schedule in order to respond to school/daycare closures (among others). Regulations for non-exempt employees “can incorporate varying times for arriving at and leaving work and/or for lunch breaks”. By arrangement, flexible working hours such as compressed workweeks are, according to the website, also possible (University of Nebraska 2020).
- ▶ In order to provide its employees with greater flexibility, the University of Heidelberg expanded its working-time frames. At the same time, however, it noted that maximum daily hours of work and rest periods must be observed and use of the extended time frame was voluntary. In parallel, the University also allowed the introduction of flextime in work areas where this was not previously possible and the extension of debit hours for existing working-time accounts (up to 2.5 times higher than previous limits) (University of Heidelberg 2020).
- ▶ The United States Office of Personnel Management (United States 2020) recommended that United States federal government agencies use flexible work schedules, which vary from predefined variations of the usual arrival and departure times or “flexitour”; the use of flexi-time or “gliding” and “variable days”, in which employees can vary the start and end of their daily work within a fixed framework; “variable weeks”, in which employees may vary the start and end of their work as well as the duration of the workday within a fixed framework; and “maxiflex”, in which employees may vary the start and end of their daily work, the duration of their daily hours of work and the working week, within a fixed framework.

This list of examples is by no means complete and can be extended at will. What is missing, however, is information on how and by whom these recommendations were adopted. However, a recent study provides at least some insight for Germany. A survey of employees of private sector companies with at least 50 employees shows that about 26 per cent of the respondents shifted their working hours at least partially to other times of the day or other days of the week during the first lockdown in April 2020. This share decreased during the course of the crisis, but was still at about 19 per cent in June 2020 and about 11 per cent in October 2020, just before the second lockdown in Germany. The rearrangement of working hours affected workers differently: Employees with the possibility of teleworking shifted their working hours more often than employees without access to telework. In addition, workers with more autonomy and workers in sales or administration shifted their working hours more often than workers in production, while mothers shifted their working hours more often than fathers (Frodermann et al. 2021), thereby (among other things) raising concerns about the retraditionalization of gender roles (Kohlrusch and Zucco 2020). There are no studies on whether and to what extent shifting working hours to atypical times was associated with negative health consequences. Also, it is not known whether the shifting of working hours was informal or formally agreed.

5.4.2 Examples for the use of life-phase instruments of working-time flexibility

During the first lockdown, several studies showed a considerable need for employees to reduce their hours of work in order to compensate for the time demands of the crisis in North America and individual EU Member States.

Due to school and daycare closures in most countries, often combined with appeals not to leave children in the care of grandparents, many governments introduced (care) leave schemes for working parents or supplemented existing ones and adapted them to the specific situation during the pandemic. In this context, a wide range of regulations and possibilities for financial compensation can be observed, ranging from partially subsidized special leave eligibilities (Austria, Greece, Portugal, Romania) to (partially) state compensated family leaves entitlements (Cyprus, France, Italy, Lithuania, Luxembourg, Malta, Poland and Norway). In addition, Belgium (partly compensated) and Spain (not compensated) introduced or

facilitated the possibility to request a reduction of working time (for more information, see Eurofound 2020a, pp. 43–44). On the other hand, New Zealand allowed employees to interrupt their parental leave without losing eligibility if they worked in critical industries (New Zealand 2020).

In Germany, the right to part-time work, the newly introduced *Brückenteilzeit*²⁵ and the family-care scheme already provide various legal options for reducing working time at comparatively short notice without having to introduce new processes or issue decrees. However, this also means that the crisis-related use of these instruments cannot be statistically distinguished from “normal” use, as the intentions behind their use are not recorded. For example, men – who on average had been hit harder by the global financial crisis than women – took longer periods of parental leave during the 2008–2009 crisis than in the years afterwards (Huebener et al. 2016). Therefore, an existing instrument was apparently used to individually respond to an existing economic downturn. Another example of the adaptation of life-phase time instruments to the situation of the pandemic are the collective agreements of the German industry unions in the metalworking and chemical industries (IG Metall and IG BCE), which allow certain groups of employees (for example, parents and shift workers) to take annual pay increases in the form of time instead of money. The IG BCE made it possible by company agreement to take additional days off for 2021 and 2022 in advance in 2020 (IG BCE 2020). The car manufacturer Daimler took advantage of the possibilities offered by the existing collective agreement and converted the so-called additional allowance for 2021 (T-ZUG) into mandatory paid days off for all employees (Daimler AG 2020) in order to counter the crisis and maintain employment. An example of the combination of short-term and life-phase working time-related measures is given in box 7.

► **Box 7. The collective agreement “Transformation” of the automotive supplier ZF Friedrichshafen**

The collective agreement signed by the automotive supplier ZF Friedrichshafen in June 2020 may represent a successful example of how short-term and life-phase flexibility instruments can be combined to safeguard employment.

The collective agreement applies to approximately 50,000 employees at various locations in Germany and “gives ZF the flexibility it needs to cope with the consequences of the economic crisis under the influence of the Corona pandemic and to continue to advance the transformation of the company in the course of the mobility transformation” (ZF 2020). The specific components are:

- ▶ a waiver of payment of a one-time special payment;
- ▶ a reduction of hours of work by up to 20 per cent (partly compensated);
- ▶ partial retirement offers; and
- ▶ an offer of qualification programmes, scholarships or sabbaticals

Source: ZF 2020.

25 The newly introduced law on *Brückenteilzeit* (part-time bridge) grants employees the right to reduce their hours of work for a period of at least one year, up to a maximum of five years, and then to return to working full-time.

In summary, both short-term and life-cycle flexibility instruments were used to safeguard employment during the crisis. However, the extent can only be estimated implicitly as no systematic surveys exist on this question.

5.5. Home-based telework (home office)

A key measure to contain the spread of the COVID-19 pandemic followed by many G20 governments was to encourage those who could telework from their homes to do so.²⁶ In order to promote a rapid move to telework for all operations that allow it, countries took a series of measures to simplify its use, including by providing financial and non-financial support to companies. Italy, for example, simplified the procedure by allowing companies and employees to arrange teleworking without a prior agreement with trade unions, without written agreement and at the employees' place of choice, while the Russian Federation introduced amendments to its Labour Code on teleworking. Spain expedited ongoing public programmes to support the digitalization of small and medium-sized enterprises. Other countries, such as Japan and the Republic of Korea, offered a subsidy towards the cost of introducing flexible work arrangements. Some large tech companies also stepped in to provide companies and workers with assistance and free-of-charge access on a temporary basis to some of their communication and sharing tools. Evidence based on surveys conducted in mid-April 2020 shows a massive surge in the share of workers working from home compared to pre-crisis numbers, ranging from about 30 per cent in Canada to almost 70 per cent in South Africa. Other figures from South African government statistics suggest that there was a rapid decline to normality thereafter: about 17 per cent of employees worked from home in the second quarter of 2020, while just under 11 per cent did so in the third quarter of 2020 (South Africa 2020).

In one comparative analysis of survey data, the work situation of employees during lockdown periods in selected OECD countries was analysed (Galasso and Foucault 2020). It found that in Australia, 47 per cent of employees worked from home during waves of the lockdown, 40 per cent worked at their usual place of work and 17 per cent interrupted their work. Home-based work was more prevalent than average among workers with at least a high-school education (nearly 60 per cent), workers with higher incomes (more than 60 per cent in the top income quartile), salaried workers (60 per cent) and full-time workers (a little more than 50 per cent). In contrast, lower-skilled, blue-collar and part-time employees remained at their company or otherwise their usual jobs. This picture is confirmed with some minor differences in other countries. In Austria, about 36 per cent of employees worked at home during the lockdown phase in the second quarter of 2020. This figure remained constant even after the lockdown was lifted in April 2021. There was also an above-average share of academics teleworking, at 60 per cent, and white-collar and service workers, at more than 40 per cent. Brazil differs from these countries, in that no national lockdown was imposed, only regional emergency measures. In this phase, 42 per cent of employees worked from home, again with higher proportions among workers at higher skill and income levels. However, unlike the other two countries, part-time workers and women in Brazil have higher shares than full-time workers and men. In the United States, the country in which telework originated, about 50 per cent of the workforce worked from home during the first wave of the pandemic, albeit with a huge gap between educational levels of workers. Whereas workers with a college degree had a telework share of 60 per cent, workers without a high-school degree only had a share of 26 per cent.

²⁶ Telework performed in the home may be referred to as “home-based telework”, “working from home” or “home office” (see Messenger 2019).

According to this analysis, New Zealand has the highest levels of telework compared to other countries: more than 70 per cent of academics and more than 80 per cent of white-collar workers worked from home during the lockdown, while even among blue-collar workers the proportion exceeded 50 per cent. This contrasts sharply with European industrialized countries, such as France and Germany, where the share of home office workers among academics was below 50 per cent in both cases, while the share among blue-collar workers was less than 10 per cent in the case of France and slightly more than 10 per cent in the case of Germany. Together with Austria and Sweden, Germany is also one of the countries in which less than 50 per cent of white-collar workers worked in a home office early in the pandemic.

Further information on the spread of telework in Europe is provided by Eurofound analyses. According to the survey cited above, 48 per cent of respondents in July 2020 said they had worked from home at least some of the time, while nearly 34 per cent had teleworked from home all of the time during the lockdowns (Eurofound 2020). In terms of actual hours of work reported by respondents, just under 40 per cent of all paid work activities were performed at home. While the average number of hours of work per week of this group was 38.9, slightly below the average of 40, the group of employees performing work only in home offices also most often reported that their work volume and hours had increased or increased significantly, with more than 20 per cent of this employee group working every day or every other day in their free time. The most important variable regarding the practice of telework is the level of education; while 74 per cent of employees with tertiary education worked in the home office, only 34 per cent of employees with secondary education and 14 per cent of those with primary education did so. Telework was most common at this stage of the pandemic in the education sector (more than 80 per cent of employees), financial services sector (more than 70 per cent) and public administration sector (about 55 per cent), compared with a little more than 30 per cent in the manufacturing sector and a little more than 20 per cent in the healthcare sector, whose employees work particularly closely with customers or patients.

In addition to the level of qualification and the industry, the country is a third important variable. In Belgium, Ireland, Italy, Spain and France, the proportion of employees who worked only in the home office ranged from about 40 per cent (France) to 50 per cent (Belgium). In the Central Eastern European countries of Croatia, Poland, Slovakia and Hungary, however, the equivalent proportion was only a little more than 20 per cent, while in the Netherlands, Sweden, Germany and Austria it was also below 30 per cent. Incidentally, about 46 per cent of this employee group worked at home for the first time during the COVID-19 crisis. At the same time, telecommuting employees were less affected by financial bottlenecks than other employee groups. The experience was obviously positive overall, as more than 60 per cent of this employee group expressed the wish to continue working from home every day or at least several times per week in the future.

The widespread use of telework can be explained not least by the different regulations in different countries and the binding nature with which telework was defined as an instrument in the COVID-19 crisis (for an overview, see Eurofound 2020a). In a number of countries, such as Austria, France, Spain or Italy, the principle applied was that telework should be used wherever possible, except for indispensable and "system-relevant" areas of activity. The degree of recommendation differs more or less significantly; while in France and Portugal teleworking was mandatory wherever possible, in other countries it was treated simply as a priority or by consensus. An example of the former practice is Germany, where from January 2021 onwards employers had to offer the possibility for telework whenever possible; an example for the latter practice is Italy, where the 2017 law on *lavoro agile* provides for individual agreements between employees and employers, which should include information on work activities, rest periods and periods of being disconnected from work resources. In Germany, a law on the right to telework was introduced by the Ministry of Labour at the end of 2020 but was not implemented. Existing regulations also differ greatly in terms of the framework conditions. Whereas in Slovakia the regulations on maximum hours of work or rest periods do not apply to teleworkers and were thus regulated much less favourably than other groups of employees, the regulations in France and Austria provide for employees to be relieved of the additional costs incurred by teleworking as a result of setting up a home workstation.

Finally, the different levels of telework in the COVID-19 pandemic were also determined by the potential for telework that exists due to the “teleworkability” of different activities in the economic structure of a country (Sostero et al. 2020). This potential varies from country to country. At the lower end of the scale are many countries in Central Eastern Europe, such as Romania, Slovakia, Bulgaria or Hungary, with a potential of about 30 per cent of jobs or less. At the upper end of the scale, in Belgium, Denmark, the Netherlands and Sweden the potential of teleworkability spans more than 40 per cent of jobs – and in Luxembourg 55 per cent of jobs. France and Germany, the largest countries, rank slightly above the European average, with a potential of slightly less than 40 per cent. Telework has become an important feature of working-time reality in other regions of the world as well, albeit much less systematically explored than the European experiences. However, examples from non-European countries show that developments and practices are rather similar to the European findings. Analysing a good practice case from Brazil, one study shows how a software company has implemented telework as a reaction to the lockdown imposed by a local government (Lopes de Lucena Alves, Alves Amoirin and Cunha Bezerra 2020). Although it was an emergency measure and despite the lack of other models of telework in the region, the instrument proved to be successful, as the company was able to continue production, find new ways to communicate and develop new business strategies. However, further adaptations were necessary as employees complained about long hours of work and a lack of leadership and social interaction. Telework also became a new reality of work in Türkiye during the COVID-19 pandemic. The starting point was the lockdown – the suspension of education in schools and universities or entry and exit bans for metropolitan cities – implemented by the Government in March 2020, combined with new regulations for telework. Based on qualitative interviews, Turkmenoglu et al. (2020) made the ambivalent finding that workers on the one hand appreciate telework as a new opportunity, but at the same time complain about the extension of hours of work and problems in accessing work-related materials, whereas managers stressed the problem of losing control over their work teams (Eurofound and ILO 2017). Finally, in Hong Kong (China) telework was first demanded by unions and then strongly recommended by the government as a measure to cope with the pandemic. Due to the support of unions and the government, telework became a widespread and new experience, as there was no tradition of telework in workplaces to build on. However, in Hong Kong (China) the preconditions for telework were problematic because of the small average sizes of homes in the city, which made it difficult to install workplaces there. Therefore, working from home all the time without periods of on-site work in the office does not seem to be very popular. Moreover, complaints about problems with the IT infrastructure and access to resources and working materials were reported (Vias and Butakhieo 2021).

These examples show that – within the limits set by the “teleworkability” of the workplace – telework offers a good option for reducing the number of social contacts and the mobility of employees, without affecting their ability to perform work. From the employees’ point of view, teleworking also has other positive aspects. According to a Eurofound survey (2020a), 77 per cent of respondents were satisfied with the quality of their work and 70 per cent expressed a preference to continue working at home at least occasionally after the pandemic was over. A similar picture emerged from an employee survey conducted by the Confederation of German Trade Unions in Germany (DGB 2021), which asked about attitudes towards telework with respect to both home-based telework and mobile work. According to the survey, the proportion of employees who did home-based telework was 18 per cent of the total workforce, while the proportion of employees who also did mobile work was 36 per cent. Also, 85 per cent of employees who teleworked stated that they could schedule and plan their work independently, while 78 per cent had influence on their working time. Work and working-time autonomy in this form of work are therefore high (see also ILO and Eurofound 2017).

However, telework also has downsides for employees. While the incidence of working-time autonomy is high, so is the practice of working in employees' free time. Regulations on working time have less effect in the telework context, while the blurring of spatial boundaries between paid work and personal life and workers' (at least potential) permanent accessibility to a digitally-enabled workplace encourages this situation. According to the Eurofound survey (2020b), 27 per cent of telecommuting employees also performed additional work in their free time every day or every other day. According to the above-mentioned DGB survey, it can be stated for Germany that 39 per cent of employees in telework were confronted with the expectation of permanent accessibility; 16 per cent reported long hours of work of more than 48 hours per week, 29 per cent performed unpaid overtime; and 21 per cent did not comply with the daily rest periods of 11 hours provided under German working-time legislation. In addition, 46 per cent of telecommuting employees reported that they continued to think about work during their non-work time and 34 per cent reported that they had difficulty balancing private interests with their work time. As a result, the surveys suggest the ambivalent finding that for telework, gains in working-time autonomy and reduced delimitation of hours of work and personal time frequently go hand in hand (Messenger 2019).

However, in surveys in several countries, a large share of the employees who experienced telework during the pandemic are in favour of continuing telework at least for a certain part of their working time. In Japan for example, 20 per cent of those workers said that they would like to telework full-time in the future and another 33 per cent would like a telework-centred work organization. In Canada, 80 per cent of the teleworkers who experienced teleworking for the first time in the pandemic indicated that they would like to work at least half of their working hours from home after the pandemic. As employers have also adapted their strategies to telework and governments and social partners have provided regulations, it seems to be probable that a larger share of employees will work from home after the pandemic than did so before (OECD 2021). In Germany, employees and companies have different views on the future of telework after the pandemic. While approximately 67 per cent of companies stated that they would prefer to go back to the share of telework before the pandemic (Backhaus et al. 2020), 53 per cent of employees who worked from home in the third quarter of 2020 responded that they would like to continue to telework to the same or a greater extent even after the pandemic is over (Bonin et al. 2020).

5.6. Conclusion

The initial hypothesis of this chapter has been confirmed: working time is one of the key tools used to help counter the threats posed by the COVID-19 pandemic to society and the economy. Without the use of working hours as an adaptation tool, the only options left in many cases would have been either to pay for pandemic countermeasures to protect the health of the population, such as lockdowns or restrictions on economic activity, with a sharp increase in unemployment or economic inactivity among the working population, or to forego pandemic countermeasures for these reasons and thereby be obliged to accept the risk to the health of older population groups in particular. Adjustments to working hours contribute to at least alleviating this political decision-making dilemma. This is true in several respects. Short-time work/work-sharing measures or other forms of job retention help to reduce the volume of work and to maintain employment on a larger scale. Flexible working hours, such as those created through the use of working-time accounts, enable individuals – or companies, enterprises or industries – to collectively reduce the hours of work following a trend already generated before the crisis, while at the same time creating the possibility of increasing hours of work in new economic bottleneck areas, such as the healthcare or pharmaceutical industries, if required. Finally, telework contributes, for jobs that are “teleworkable”, by reducing the social contacts of employees and enabling them to perform work from outside the employer's premises and thereby maintain their work volume.

By and large, the countries in which these measures are applied benefit from the experiences they gained during the financial market crisis or even before. However, the instruments are not tailor-made for a pandemic response. This is particularly true for short-time work/work-sharing and working-time flexibility, which already played a major role in maintaining employment – and thus economic purchasing power – before the pandemic. In the case of teleworking, the situation is somewhat different. Although its roots also go back to its invention in the state of California in the United States in the 1970s, when first computers (and later the internet) opened up the opportunity to decouple work location and work activity (for more information on the evolution of telework, see Messenger 2019), teleworking was irrelevant during the financial market crisis, when the task was to reduce hours of work but not to change the place of work. That changed in the COVID-19 crisis, with the new requirement to reduce social contacts and work from outside the employer's premises.

What is new, however, is the extent to which these instruments are being used. In particular, short-time work/work-sharing or other forms of job retention have been and are being used far more than ever before the pandemic. This applies to both the share of employees covered by these measures in individual countries and the number of countries in which they were newly introduced. As a result of this breadth of use, the measures were also significantly expanded and therefore modernized, whether in terms of the thresholds for use, the level of allowances or the inclusiveness of the eligible groups of employees, which in most cases now also include atypical employment relationships beyond the normal employment relationships.

Flexible working hours have played a major role in addressing the specific requirements of contact reduction or avoidance, without us being able to quantify them precisely. Indications of this are the extension of the statutory maximum hours of work, the reference on company websites to the removal of the temporal working framework for the period(s) of lockdown and the need to spatially distance the workforce. Without informal flexibility on the part of the employees, this would not have been possible in the short term.

However, the working-time instruments and measures described above also have their limits and downsides. Short-time work, for example, is an effective instrument for reducing hours of work, but it is also expensive because states have to bear most of the wage costs. Therefore, they are limited to developed political economies, which, like the countries of the EU and the OECD, can borrow funds on the financial markets on reasonable terms to finance the costs or can raise some of these funds through taxation at home. Other countries with fewer resources and lower levels of economic development are unable to use this instrument. Moreover, most of these countries have a more or less strongly developed informal economy, whose employees would not even be covered by the measures regulated by the state or collective agreements. In most cases, the alternative and painful path for employees is unemployment or a retreat from the labour market.

Regarding working-time flexibility, it can be stated that without the willingness of employees to work both time-flexibly and location-flexibly during the pandemic and especially during the times of lockdown, the negative effects on the economy would probably have been even greater. Flexibility was and is necessary in times of crisis. The existence of both short-term and long-term flexibility instruments benefited those firms with experience. However, it is plausible to assume that flexibility was often provided informally and not regulated. The resulting negative effects, such as an increased risk of burnout or accidents, are well known.

Finally, teleworking also has some ambivalent aspects. For many employees, working from home is accompanied by a gain in working-time autonomy, but at the same time the problems of extended hours of work and work-life balance arise. Teleworking may promote a process of dissolution of boundaries when not practiced correctly, which was presumably accelerated during the pandemic by the fact that the

opportunities for leisure-time activities decreased considerably. While alternating teleworking and office work may have a positive effect on the productivity and work-life balance of employees; in the long term, however, if full-time teleworking becomes established as a permanent condition, disadvantages may be expected for the company as a social location and its ability to innovate. Another point should also be considered. Telework has always been a voluntary work arrangement, which is part of the explanation of its positive effects on working-time autonomy. As a mandatory arrangement forced by the pandemic, its downsides seem to have been exacerbated, as it carries the danger of the retraditionalization of existing gender roles with regard to the allocation of housework and childcare responsibilities.

What lessons for the future can be drawn from the experience to date with working-time responses in the COVID-19 pandemic? On the one hand, the positive experience of short-time work/work-sharing and teleworking in particular suggests that these responses should be made permanent and that the wheel should not be turned back again. Countries should make use of the experiences they developed with working-time reduction and working-time flexibility in the COVID-19 pandemic. Inclusive short-time work schemes with the highest possible allowances not only maintain employment but also sustain purchasing power and open up the possibility of cushioning the effects of economic crises. Teleworking, in turn, creates a new scope for the autonomy of employees, both in terms of working hours and work-life balance. At the same time, however, it seems to be necessary to remedy the weaknesses of these instruments that became apparent during the COVID-19 pandemic. In the case of short-time work, this includes above all the question of poorer countries' access to financial resources that could be used for the implementation of such measures and that could be repaid realistically after crises. With regard to telework, the aim should be to exploit the possibilities of "teleworkability" as far as possible, but at the same time to take precautions to contain the negative effects of long hours of work and the resulting restricted scope for action to promote work-life balance by means of state and collective regulations, in consultation with both employers' and workers' organizations. Such measures could potentially include the frequently mentioned "right to disconnect" (R2D), as well as time recording. Short-term – and in some cases also informal – working-time flexibility was and is necessary during an economic crisis. For the period after the crisis, however, it is important to recognize that working-time laws and stipulations on maximum daily hours of work and statutory rest periods are achievements that contribute to the health and well-being of a society in the long term and must not be put at risk lightly.

5.7. References

- Backhaus, N., et al. 2020. "Arbeit von zuhause in der Corona-Krise: Wie geht es weiter?". BAUA.
- Bellmann, L, et al. 2020. "Kurzarbeit ist nicht alles: Was Betriebe tun, um Entlassungen in der Krise zu vermeiden". *IAB-Forum* (September).
- Bonin, Holger, et al. 2020. *Verbreitung und Auswirkungen von mobiler Arbeit und Homeoffice*. Forschungsbericht 549. Germany, BMAS.
- Bosch, Gerhard. 2011. "The German Labor Market after the Financial Crisis: Miracle or Just a Good Policy Mix?" In *Work Inequalities in the Crisis? Evidence from Europe*, edited by Daniel Vaughan-Whitehead, 243–277.
- Bose, Shubham. 2020. "Singapore to Allow Flexible Working Hours for People Working in Offices amid COVID-19". *RepublicWorld.com*, 9 October.
- Carrière, Gisèle, et al. 2020. "Overtime Work among Professional Nurses during the COVID-19 Pandemic". Statistics Canada.
- ColomboPage. 2020. "Sri Lankan Government Sets Guidelines for Workplaces to Return to Normal Functions amid COVID-19". 19 April.
- Collins, Caitlyn, et al. 2020. "COVID-19 and the Gender Gap in Work Hours". *Gender, Work, and Organization* 28(51): 101–112.
- Daimler AG. 2020. "Daimler senkt Arbeitszeit in der Verwaltung: Entfall der Ergebnisbeteiligung für 2020".
- DGB. 2021. "Arbeiten im Home Office: Zwischen Gestaltungsspielraum und Mehrbelastung".
- Eichhorst, Werner, et al. 2020. *IZA COVID-19 Crisis Response Monitoring: Short-Run Labor Market Impacts of COVID-19 – Initial Policy Measures and Beyond*. IZA Research Report 98. Institute of Labor Economics.
- ETUC. 2020. "Short Time Work Measures across Europe". COVID-19 Watch/ETUC Briefing Note.
- ETUI. 2020. *Benchmarking Working Europe 2020: COVID-19 and the World of Work – The Impact of a Pandemic*.
- Eurofound. 2020a. *COVID-19: Policy Responses across Europe*. Research Report.
- . 2020b. *Living, Working and COVID-19*. Research Report.
- . 2020c. *Mandatory usage of holiday entitlements and time credits, case AT-2020-12/542 (measures in Austria)*, COVID-19 EU Policy Watch, Dublin, <http://eurofound.link/covid19eupolicywatch>
- . 2020d. *Industrial Relations and Social Dialogue: Hungary – Working life in the COVID-19 Pandemic 2020*.
- . 2021. *COVID-19: Implications for Employment and Working Life*.
- Eurofound and LO. 2017. *Working Anytime, Anywhere: The Effects on the World of Work*.
- Eurostat. 2020. "Quarterly National Accounts: GDP and Employment".
- Frodermann, Corinna, et al. 2021. "'Nine to five'" war gestern: In der Pandemie haben viele Beschäftigte ihre Arbeitszeiten verlagert". *IAB-Forum* (July).
- . 2020. "Online-Befragung von Beschäftigten: Wie Corona den Arbeitsalltag verändert hat". *IAB-Kurzbericht* 13.
- Fuchs, Johann, et al. 2010. "Prognose 2010/2011. Der Arbeitsmarkt schließt an den vorherigen Aufschwung an". *IAB-Kurzbericht* 18.
- Galasso, Vincenzo, and Martial Foucault. 2020. *Working during COVID-19: Cross-Country Evidence from Real-Time Survey Data*. OECD Social, Employment and Working Papers No. 246.
- Gschwind, Lutz, and Oscar Vargas. 2019. "Telework and its Effects in Europe". In *Telework in the 21st Century: An Evolutionary Perspective*, edited by Jon Messenger, 36–75. Edward Elgar Publishing.
- Gentilini, Ugo, et al. 2022. *Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures*. Version 16. World Bank.

Germany, *sachsen.de*. 2021. "Sachsen gestattet befristete Ausnahmen vom Arbeitszeitgesetz für medizinischen und Pflegebereich, Impfungen sowie Krematorien".

Herzog-Stein, Alexander, and Hartmut Seifert. 2010. *Deutsches „Beschäftigungswunder“ und flexible Arbeitszeiten*. WSI Diskussionspapier No. 169.

Hijzen, Alexander, and Danielle Venn. 2011. *The Role of Short-Time Work-Schemes during the 2008-2009 Recession*. OECD Social, Employment and Migration Working Papers No. 115.

Huebener, Mathias, et al. 2016. Zehn Jahre Elterngeld: Eine wichtige familienpolitische Maßnahme. *DIW Wochenbericht* 49.

IAW. 2021. *Meta-Studie: COVID-19-Pandemie und betriebliche Anpassungsmaßnahmen Begleitforschung für die Arbeitsweltberichterstattung*. Forschungsbericht 580/4.

IG BCE. 2020. "Vereinbarung von IG BCE und BAVC: Beschäftigte können freie Tage vorziehen".

ILO. 2021a. "Supporting Migrant Workers during the Pandemic for a Cohesive and Responsive ASEAN Community". Thematic background paper for the 13th ASEAN Forum on Migrant Labour.

---. 2021b. "COVID-19 and Employment Protection Policies: A Quantitative Analysis of the Asia-Pacific Region". ILO brief.

---. 2021c. "ILO Monitor: COVID-19 and the World of Work – Eighth Edition: Updated Estimates and Analysis".

---. 2021d. *Situation Analysis on the COVID-19 Pandemic's Impact on Enterprises and Workers in the Formal and Informal Economy in India*.

---. 2021e. "Protecting the Life and Health of Workers during the COVID-19 Pandemic: Overview of National Legislative and Policy Responses". ILO brief.

---. 2020. "ILO Monitor: COVID-19 and the World of Work – Sixth Edition: Updated Estimates and Analysis".

---. 2020a. "Labour Overview in Times of COVID-19: Impact on the Labour Market and Income in Latin America and the Caribbean – Second Edition". Technical note.

ILO and OECD. 2020. *The Impact of the COVID-19 Pandemic on Jobs and Incomes in G20 Economies*. ILO–OECD paper prepared at the request of G20 Leaders. Saudi Arabia's G20 Presidency.

Joho, Katja. 2020. "Wer bei Twitter anheuert, darf „für immer“ von zu Hause aus arbeiten". *Wirtschaftswoche*, 13 May.

Japan Institute for Labor Policy and Training. 2020. "What Impact Is the Covid-19 Crisis Having on Work and Daily Life?" *Japan Labor Issues* 4 (27): 14–29.

Lopes de Lucena Alves, Thaís, Amanda Florense Alves Amoirin and Maria Clara Cunha Bezerra. 2020. "'Not One Less!' Adaptation to the Home Office in Times of COVID-19". *Journal of Contemporary Administration* 25(Spe): 1–15A.

Köhler, Timothy, and Robert Hill. 2021. *Wage Subsidies and COVID 19: The Distribution and Dynamics of South Africa's TERS Policy*. DPRU Working Paper 202109. University of Cape Town.

Konle-Seidl, Regina. 2020. "Short-Time Work in Europe: Rescue in the Current COVID-19-Crisis?". *IAB Forschungsbericht* No. 4.

Kümmerling, Angelika, and Vanessa Schmieja. 2021. *Arbeitszeiten während der Corona-Pandemie: Wachsende Unterschiede zwischen Frauen und Männern: IAQ-Arbeitszeitmonitor. Duisburg: Inst. Arbeit und Qualifikation*. IAQ Report 2021/07. University of Duisberg-Essen.

Kümmerling, Angelika, and Steffen Lehndorff. 2014. *The Use of Working Time-Related Crisis Response Measures during the Great Recession*. Conditions of Work and Employment Series No. 44. ILO.

Kohlrausch, Bettina, and Aline Zucco. 2020. "Die Corona-Krise trifft Frauen doppelt". WSI Policy Brief No. 40.

Messenger, Jon, ed. 2019. *Telework in the 21st Century: An Evolutionary Perspective*. Edward Elgar Publishing.

Messenger, Jon C., and Naj Ghosheh, eds. 2013. *Work Sharing during the Great Recession: New Developments and Beyond*. Edward Elgar Publishing and ILO.

New Zealand, Employment New Zealand. 2020. "Temporary Changes to Parental Leave Law Due to COVID-19".

Müller, Torsten, and Thorsten Schulten. 2020. *Ensuring Fair Short-Time-Work: A European Overview*. ETUI-Policy Brief: European Economic, Employment and Social Policy No. 7.

OECD. 2020. *Job Retention Schemes during the COVID-19 Lockdown and Beyond*.

---. 2021. *Measuring Telework in the COVID-19 Pandemic*. OECD Digital Economy Papers No. 314.

Otterbach, Steffen, Andrew Y. K., Fok, and Mark Wooden. 2021. "Working-Time Regulation, Long Hours Working, Overemployment and Mental Health". *The International Journal of Human Resource Management* 32(22): 4659–4686.

Reich, Astrid. 2020. "Germany: Relaxation of the Working Hours Act: The Regulation on the Deviation from the Working Hours Act as a Result of the COVID-19 enforcement (COVID-19 Working Hours Regulation)". *mondaq.com*, 6 June.

Seifert, Hartmut, Angelika Kümmerling and Arnold Riedmann. 2013. "Langzeitkonten: überschätzte Erwartungen einer biografieorientierten Zeitpolitik?". *WSI-Mitteilungen* 66 (2): 133–143.

Smyth, Ciara, Natasha Cortis and Abigail Powell. 2020. "University Staff and Flexible Work: Inequalities, Tensions and Challenges". *Journal of Higher Education Policy and Management* 43(5): 489–504.

Sostero, Matteo, et al. 2020. *Teleworkability and the COVID-19 Crisis: A new Digital Divide?* JRC Working Paper Series on Labour, Education and Technology 2020/5. European Commission and Eurofound.

Spiegel Wirtschaft. 2020. "Google-Mitarbeiter bleiben bis Juli 2021 im Home Office". 27 July.

Statistics Canada. 2020. "Current or Planned Actions or Measures in Place for Parents Employed by the Business or Organization, by Business Characteristics". Table 33-10-0278-01 . 11 November.

South Africa, Statistics South Africa. 2020. "Quarterly Labor Force Survey: Quarter 3: 2020".

Tomohiro, Takami. 2021. "Impact of the COVID-19 Recession on Full-Time Workers: Shortened Work Hours, Working from Home, and Possible Widening of Income Disparities". *Japan Labor Issues* 5(28): 9–18.

Turkmenoglu, et al. 2020. "Working from Home During the COVID-19 Outbreak: A Study on Employee Experiences". In *18th RSEP Economics, Finance & Business Conference: Conference Proceedings – Full Papers*, edited by Dr. Patrycja Chodnicka-Jaworska, 116–120.

United Kingdom. 2020. "Time Series". Office for National Statistics website, ons.gov.uk.

United States, Office of Project Management. 2020. "Fact Sheet: The Use of Flexible Work Schedules in Response to Coronavirus Disease 2019".

University of Heidelberg. 2020. "Information for Employees of Heidelberg University Regarding the Coronavirus".

University of Nebraska. 2020. "COVID-19: Flexible Work Schedule".

University of Washington. 2020. "Toolkit to Support Caregivers".

Vyas, L., and N. Butakhieo. "The impact of working from home during COVID-19 on work and life domains: An exploratory study on Hong Kong". *Policy Design and Practice* 4(1), 59–76. <https://doi.org/10.1080/25741292.2020.1863560>.

Vyas, Lina, and Nantapong Buthakieo. 2020. "The Impact of Working from Home During COVID-19 on Work and Life Domains: An Exploratory Study from Hong Kong". *Policy Design and Practice* 4 (1): 59–76.

ZF. 2020. "Tarifvertrag Transformation: Zwei Jahre Sicherheit für Mitarbeiter und Flexibilität für das Unternehmen". Press release, 24 July.



6.

6. Conclusions and implications for policy

This concluding chapter summarizes the main conclusions of Chapters 2 to 5 and then considers their implications for working-time policies, with a focus on those policies designed to promote better work–life balance.

6.1. Main conclusions of the report

Chapter 2 reviewed the important patterns and developments of hours of work – the length or volume of working hours—in both the formal and the informal economies. The most prominent feature of working-time patterns and developments in today’s world is the uneven distribution of hours of work. Substantial portions of the global workforce work either long hours or short hours. Although average hours of work globally fall well within the normal range – at approximately 43.9 hours per week prior to the COVID-19 pandemic – yet slightly more than one third of the world’s workers (35.4 per cent) work more than 48 hours per week, while fully one fifth of them (20.3 per cent) work short (part-time) hours or less than 35 hours per week. Of the latter group of workers, roughly one third of them work very short hours (less than 20 hours per week). From a gender perspective, men are more likely to regularly work long hours, while women are more likely to work short or very short hours and to experience time-related underemployment. Although long hours of work decreased slightly early in the pandemic and short hours of work increased somewhat, both of these phenomena were already reverting to their pre-pandemic levels by the end of 2020 (with some regional variations) in countries for which data was available at the time of preparation of this report. Finally, the informal economy provides an excellent illustration of the uneven distribution of hours of work: *workers in the informal economy are more likely to work both long hours and short hours than those in the formal economy.*

Chapter 3 considered the other half of the working-time equation – the ways in which hours of work are organized, that is, working-time arrangements or work schedules. It reviewed the variety of working-time arrangements that currently exist in the global economy and attempted to document their prevalence and their effects on work–life balance, based on the limited data available. Better work–life balance, an important outcome of many of these arrangements, provides significant benefits for both employers and employees. It is therefore important to identify the work–life balance outcomes associated with each working-time arrangement. The classical standard workweek (eight hours per day, five or six days per week) provides stability for workers to plan their lives, yet such fixed schedules are often too inflexible to allow time for family demands as and when needed. Shift work can provide greater schedule flexibility to workers to help them balance their work and non-work commitments. However, shift work can also require workers to work during atypical hours, which has been linked to significant health risks and family life disruptions. Part-time work (less than 35 hours per week) with predictable work schedules enables workers to have more time for their personal responsibilities and/or leisure, leading to a better balance between paid work and personal life. However, on-call work with highly unpredictable «just-in-time» schedules severely disrupts work–life balance by making it difficult for workers to organize their personal lives and finances, and it has also been shown to have negative effects on workers’ health. By contrast, flextime (flexible schedules) enables workers to organize their own work schedules based on their individual needs, within established parameters, in order to optimally balance their paid work and

personal commitments. Flextime has positive effects on workers' mental health, but it may reinforce gender inequalities if it is only used by women. Compressed workweeks provide employees with longer weekends to spend with family and friends, thereby improving their work-life balance; there is a debate regarding the health impacts of compressed workweeks, but there is more evidence that their effects are positive. Work-life balance can potentially be facilitated with hours-averaging schemes with short- to medium-length reference periods (such as one to four months), but when they are poorly designed and implemented, employees can be left vulnerable to drastic swings in hours of work that disrupt their personal lives.

Chapter 4 reviewed the matches and mismatches between workers' actual hours of work compared with their preferred hours²⁷, using a unique pre-crisis dataset, the ISSP Work Orientations IV Module (2015). It utilized two different, equally valid measures to present an array of working-time match and mismatch patterns, based on country, region, gender, income and occupational skill levels. Two measures each, for both overemployment and underemployment, were used to capture the different conceptualizations of working-time mismatches that exist. The results indicate that high-income countries tend to have a slightly higher rate of overemployment and a lower rate of underemployment compared to upper-middle-income and lower-middle-income countries, with the key exception of the five anglophone countries included in the ISSP survey. Work-life imbalances are strongly connected with the incidence and rate of overemployment in most regions of the world and most of the countries and income levels considered. Interestingly, self-employed (own-account) workers report a higher incidence of underemployment than employees on a payroll. In terms of gender, on the whole women have greater rates of both overemployment and underemployment. In addition, there is a clear correlation of increasing occupational skill levels with higher overemployment and lower underemployment. Understanding the prevalence of working-time mismatches is also important due to its negative effects, not only on work-life balance but more broadly on indicators of workers' well-being, including their life and job satisfaction, physical health and mental health. The findings of the ISSP work-life balance indicator support the findings of previous research that overemployment is particularly harmful to work-life balance. They also reinforce findings that overemployed workers report lower levels of life satisfaction, while both types of working-time mismatches tend to lead to poorer outcomes for workers' physical and mental health. From the employer's perspective, working-time mismatches among workers generally result in reduced productivity, poorer job performance, and higher turnover and absenteeism. Therefore, there is a need to find policy solutions to mitigate working-time mismatches in order to support workers in achieving better work-life balance and better overall well-being.

Finally, Chapter 5 turned to the evolution of working hours during the COVID-19 pandemic and the working time-related crisis-response measures that emerged, most prominently work-sharing/short-time work and home-based telework (working from home). Working time is one of the key tools that can be used to counter the threats to society and the economy posed by any economic downturn. Overall, it appears that the reduced hours of work during the pandemic – in particular the increase in the proportion of workers with short hours of work – had a positive effect on employment by helping to prevent job losses. However, this phenomenon was concentrated in more developed countries; in the case of telework, it was also concentrated in countries with relatively good IT infrastructures and large numbers of workers in «teleworkable» jobs. Without the use of working hours as an adaptation tool, the only options left in many cases would be either (a) to pay for pandemic countermeasures to protect the health of the population, such as lockdowns or restrictions of economic activity, with a sharp increase in unemployment or economic inactivity among the working population; or (b) to forego pandemic countermeasures for these reasons and be obliged to accept the risk to the health of older population groups in particular. Adjustments to working hours contributed to at least alleviating this political

27 Working-time mismatches can be defined as the incongruence between workers' actual hours of work (see Ch. 2) and their preferred hours of work. Mismatches include both time-related underemployment (see also Ch. 2) and overemployment, which is a situation in which a worker would prefer to reduce their actual hours of work, with a corresponding decrease in income.

decision-making dilemma in several ways. Short-time work/work-sharing measures or other forms of job retention helped to reduce the volume of work and at the same time to maintain employment on a larger scale. Flexible working hours, such as those created through the use of working-time accounts, enabled individuals – as well as companies, enterprises and industries – to collectively reduce the hours of work following a trend already generated before the crisis, while at the same time creating the possibility of increasing hours of work for new economic bottleneck areas, such as in the healthcare or pharmaceutical industries, if required. Finally, telework contributed to the COVID-19 crisis response – in jobs that are «teleworkable» – by reducing the social contacts of employees and enabling them to perform work from outside the employer’s premises, thereby both maintaining organizational operations and preserving jobs.

6.2. Implications for public policies and enterprise/organizational policies

Given the main conclusions of the report reviewed in section 6.1 above, this section considers their implications for both public policies (national and sectoral) and enterprise/organizational policies. It also suggests some policy options that ILO constituents may wish to consider.

6.2.1 Public policies (national and sectoral levels)

Crisis-response measures

What lessons for the future can be drawn from the experience to date with working-time responses to the COVID-19 pandemic? Working-time related crisis-response measures once again proved their worth in responding to an economic crisis, particularly work-sharing/short-time work measures – as they had done previously during the Great Recession and its global financial and economic crisis. However, due to the unusual nature of the COVID-19 pandemic, mass teleworking was also deployed as a business continuity measure to help mitigate the spread of the virus, while allowing enterprises to remain in operation and workers to remain employed. Although this had been done before in a few specific situations (such as following the Great Japanese Earthquake in 2011), the large-scale implementation of telework nearly everywhere in the world that it was feasible to do so changed not only teleworking but also the nature of employment, most likely for the foreseeable future.

On the one hand, the positive experience with short-time work/work-sharing and teleworking suggests that these responses should be made permanent and that the wheel should not be turned back again. During the COVID-19 economic crisis, work-sharing/short-time work policies and measures such as *Kurzarbeit* in Germany encouraged companies to respond to reduced demand for their products and services by reducing hours of work instead of cutting jobs. For example, instead of laying off 20 per cent of the workforce, employers could reduce hours of work for all workers by 20 per cent – from a five-day workweek to a four-day workweek (for a comprehensive analysis of such measures, see Messenger and Ghosheh 2013). Countries should make use of the experiences they developed with working-time reduction and working-time flexibility during the COVID-19 pandemic. Inclusive short-time work schemes with the highest possible allowances not only maintain employment but also sustain purchasing power and create the possibility of cushioning the effects of economic crises. Teleworking helps maintain employment and also creates new scope for the autonomy of employees, in terms of regulating both their hours of work and their work-life balance. At the same time, however, it seems to be necessary to remedy the weaknesses of these working-time instruments that became apparent during the COVID-19 pandemic. In the case of work-sharing/short-time work, this concerns above all the need to ensure poorer countries’ access to financial resources that could be used for the implementation of such measures and could realistically be repaid after a crisis. With regard to telework, the aim should be to exploit the

possibilities of “teleworkability” as far as possible, but at the same time to take precautions to contain the negative effects of long working hours and the resulting restricted scope for promoting work–life balance, through state and collective regulations. This could include the frequently mentioned “right to disconnect”, as well as the recording of working time. Short-term – and in some cases also informal – working-time flexibility was and is necessary during an economic crisis. For the period after the crisis, however, it is important to recognize that working-time laws and regulations on maximum daily hours of work and statutory rest periods are achievements that contribute to the health and well-being of a society in the long term and must not be put at risk lightly.

Broader work–life policies

Amazingly, a century after the adoption of Convention No. 1 in 1919, slightly more than one third of the world’s workers still work more than 48 hours per week. As we saw in the introduction in Chapter 1, there has been substantial progress in reducing hours of work in many countries during this period – particularly in countries with advanced economies and especially in Europe. Yet, regular long hours of work remain a serious concern in most of the world today, particularly in regions such as Asia and the Pacific. Also, the evidence reviewed in Chapter 4 suggests that a substantial portion of workers who work more than 48 hours per week would like to reduce their hours of work – and many of them say that they would like to do so even if it meant a reduction of their income. Moreover, longer hours of work are generally associated with lower unit labour productivity, while shorter hours of work are linked with higher productivity (for a summary of the relationship between hours of work and labour productivity, see Messenger 2018).

Therefore, it is evident from the preponderance of the evidence that some type of public policy response is necessary to help promote a reduction of hours of work in many countries; indeed, such reductions have often been adopted in part to increase labour productivity, which is essential for raising standards of living in the long term. When considering the reduction of hours of work, it is essential to keep in mind that countries are in very different places with respect to working-time laws and regulations. For regions in which the 48-hour workweek is still dominant, such as Asia and the Pacific and Latin America, an appropriate target would be to move towards the standard of the 40-hour workweek, which was established in the Forty-Hour Week Convention, 1935 (No. 47) and promoted in the Preamble to the Reduction of Hours of Work Recommendation, 1962 (No. 116) as “a social standard to be reached by stages if necessary, and setting a maximum limit to normal hours of work, pursuant to the Hours of Work (Industry) Convention, 1919”. For example, as part of an effort to increase productivity, the Colombian Government reduced the standard workweek from 48 hours per week to 42 hours per week; previously, Colombia had the longest standard workweek among OECD countries (*planetlabor.com 2021*).

For regions and countries in which the 40-hour workweek already exists, experimentation with reduced full-time hours²⁸ may occur at the national level, such as in Iceland (see box 8) and more recently in Spain and the United Kingdom, as described below; at the sectoral level via innovative collective agreements, such as the one between the trade union IG Metall and the employers’ organization Gesamtmetall (IG Metall 2018); or at the enterprise level, such as in a recent experiment with a four-day workweek by one New Zealand company (Graham-McLay 2018). A reduction of hours of work may mean a shorter workday (such as a six-hour workday); a shorter workweek (such as a five-day or four-day workweek, depending on the existing national standard for normal hours of work); or a shorter working year achieved via additional days of paid annual leave, paid holidays and/or other types of paid leave, in line with the principles of the Workers with Family Responsibilities Recommendation, 1981 (No.165).

28 Unlike for part-time work, a reduction of full-time hours of work does not imply a reduction in pay.

Some prominent pilot tests of reduced workweeks were in progress at the time of preparation of this report. For example, Spain launched a three-year, €50 million pilot project that allows companies to test reduced hours with minimal risk. During the trial period, the costs of implementing a four-day workweek pilot may be covered at 100 per cent for the first year, 50 per cent for the second year and 33 per cent for the third year (Kassam 2021). Importantly, this pilot project is expected to ensure no loss of jobs or reduction in salary.

There is also an ambitious pilot experiment with a four-day workweek under way in the United Kingdom, involving more than 70 organizations and led by the non-profit group 4 Day Week Global, in collaboration with the think tank Autonomy and researchers from Cambridge University, Oxford University and Boston College. It has shown some promising results as of the halfway point, with 88 per cent of the respondents to a survey of participating organizations reporting that the four-day workweek worked well for their enterprise and 49 per cent reporting improved productivity, while 46 per cent reported achieving the same level of productivity in the reduced workweek (Lockhart 2022).

► **Box 8. Icelandic reduced workweek pilot**

Between 2015 and 2019, Iceland implemented two large-scale pilots of reduced working weeks of 35–36 hours, which at their peak covered more than 1 per cent of the working population. The reductions did not affect salaries. The first pilot was conducted by the Reykjavík city authorities and a trade union confederation, the Federation of State and Municipal Employees (BSRB). The second pilot was conducted in 2017 by the Icelandic Government and BSRB. The pilots were conducted in the context of Iceland having some of the longest hours of work in the OECD (Haraldsson and Kellam 2021). Also, Iceland suffered from low productivity levels and proponents presented the reduction in hours of work as a solution to this problem.

Trials

Reykjavík pilot (2014–2019)

Two committees were set up to manage the scheme and working-time reductions were tailored for each workplace based on specific duties and modes of operation. The pilot began with two groups of 66 workers. Over the five-year period, the number of participants increased to 2,500 employees in a range of workplaces, including playschools, care homes and social services centres.

Icelandic Government pilot (2017–2021)

A working group was established in 2016 and all government departments were invited to join the pilot. A variety of departments took part, including a police department and the migration directorate. The pilot began with 440 staff members and eventually encompassed 2,500 employees, equivalent to 1.3 per cent of the Icelandic workforce. For both pilots, steering committees were used to help promote effective implementation of the workweek reductions and ensure dialogue between management and workers. After the conclusion of the pilots, collective agreements were signed that gave 86 per cent of the Icelandic workforce a reduced workweek or the right to shorten their hours (Haraldsson and Kellam 2021).

► Box 8. Icelandic reduced workweek pilot (continued)

Results

(1) *Real working-time reduction*

Opponents of the workweek reductions argued that that it would lead to increased overtime as employees would have to catch up outside normal working hours (Haraldsson and Kellam 2021). However, there was no evidence supporting this hypothesis in either pilot. Service provision remained at the same level, with the time reduction coming from “rethinking how tasks were completed: shortening meetings, cutting out unnecessary tasks, and shift arrangements” (Haraldsson and Kellam 2021). As a result, the workweek reduction was achieved through changes to working practises to ensure achieve efficiency of time use.

(2) *Productivity increase and service provision*

The majority of data collected on the Icelandic trials suggests that service provision remained the same. The report (Haraldsson and Kellam 2021) contains detailed quantitative analysis of each department’s services and found a continuity of service quality as well. It can be extrapolated from these results that there was an increase in productivity given that the same service was provided with fewer hours of work.

(3) *Wellbeing and work-life balance*

Workers in the Icelandic Government pilot reported increased well-being at work. The results of the Reykjavík pilot were mixed, with some workers reporting increased well-being and others not. In neither trial did workers’ well-being decrease compared to when they worked more hours. A key finding of both pilots was that workers reported fewer symptoms of stress (Iceland 2018; Iceland 2019), accompanied by a feeling of being energized that had a positive impact on their work (Haraldsson and Kellam 2021). Participants also reported improved work-life balance due to having more time with their families and less work-life conflict (Iceland 2019); that the quality of their weekends increased because they could carry out errands on Fridays; and that for heterosexual couples, male participation in housework increased (Iceland 2019). Therefore, the workweek reduction on the whole increased workers’ well-being and led to greater overall work-life balance.

Although many workers work long hours, about one fifth of the world’s workers work short (part-time) hours or even very short hours, despite the fact that many of them would prefer to work longer hours to earn more money (Fagan et al. 2014; ILO 2016). In other words, they are underemployed – and as we have seen most underemployed workers are women. Such workers not only earn less income than they would prefer but also suffer because part-time jobs often offer relatively lower-wage rates and benefit coverage; moreover, those with very short hours often work in on-call working-time arrangements, in which hours of work are highly variable from week to week and work schedules are unpredictable. In addition, from a business perspective, the improvement of such on-call working-time arrangements is a rational choice for many businesses, because by designing and implementing balanced working-time arrangements that include adequate protections for workers, high turnover costs and absenteeism can be pre-empted and greater productivity and customer satisfaction can be gained.

It is therefore a fundamental challenge for everyone to ensure that atypical forms of employment, including part-time employment with very short hours, are characterized by responsible collaboration, social inclusion and parity of rights and benefits. To this end, the following are some specific policy suggestions:

- ▶ Apply the principle of equal treatment of full-time and part-time workers working in comparable jobs, as enshrined in Convention No. 175.
- ▶ Introduce basic guarantees of minimum hours of work, including appropriate penalties for non-compliance.
- ▶ Adopt regulations that mitigate some of the vulnerabilities of part-time work with very short hours, such as premium pay for short hours, a fixed minimum compensation rate for “on-call” times not worked and/or favourable unemployment/social benefits.
- ▶ Provide workers with adequate advance notice of their work schedules in order to allow them to be able to properly plan their personal lives, including their family responsibilities.
- ▶ Provide for paid leave (such as sick leave, annual leave and parental leave) on a pro-rata basis compared with full-time staff.
- ▶ Promote workers' awareness of their labour rights under these arrangements, in order to prevent discrimination – particularly against women and young people, who are over-represented in this type of part-time employment.
- ▶ Provide these workers with equal access to career development and skill training opportunities, compared with full-time staff, in order to help position them to make a successful transition from part-time work with very short hours to regular part-time or full-time jobs.

6.2.2 Enterprise/organizational policies

Despite the obvious importance of reducing – or increasing, as the case may be – overall hours of work, the ways in which they are organized is also of great importance for promoting a healthy work-life balance and improving enterprise performance as well. As this report has shown, working-time arrangements/work schedules can have widely divergent effects, depending on the specific type of arrangement and how it is structured. If they are properly structured, working-time arrangements can be mutually advantageous for both workers and employers, as they can improve working conditions and allow workers to have a better balance between paid work and their personal lives, while simultaneously enabling employers to better adapt their workforce to fluctuations in workload. Working-time arrangements may also provide additional business benefits that can make enterprises more sustainable, such as decreased absenteeism, increased retention of current employees and improved recruitment of new employees. When properly designed and implemented, they can also improve employee morale and attitudes as well as operational efficiency, which in turn can improve productivity, quality and ultimately firm performance (Golden 2012).

Based upon both international labour standards related to working time and workers with family responsibilities, as well as the findings of recent research on working time and its effects (as summarized earlier in this report), the ILO identified five significant dimensions of decent work in the area of working time or “decent working time” (ILO 2007). Working-time arrangements should:

- ▶ promote health and safety;
- ▶ be “family-friendly” and improve workers’ work–life balance;
- ▶ promote gender equality;
- ▶ increase the productivity and sustainability of enterprises; and
- ▶ offer workers a degree of choice and influence over their hours of work.

These five dimensions provide a set of guiding principles that point towards decent work in the area of working time (for further details, see ILO 2007).

In order to put decent working time into action, enterprises need to seek possibilities to arrange working hours/work schedules in ways that can accommodate the needs of workers, while simultaneously meeting their business requirements. This win-win approach takes into account both workers’ and employers’ preferences, as suggested in Recommendation No. 116. While it is not possible to discuss the full range of potential working-time arrangements here, the ILO has developed a practical tool on working time – the *Guide to Developing Balanced Working Time Arrangements* (ILO 2019) – to assist ILO constituents in designing and implementing new working-time arrangements in a balanced manner that benefits both workers and enterprises. In this context, it is important to emphasize the particularly problematic nature of on-call work, with its highly variable hours and unpredictable schedules; the policy suggestions presented above regarding such part-time workers also apply to these workers. In addition, national policies that promote flexible working arrangements, including those that establish a legal “right-to-request” for such arrangements, can help to ensure that a broad range of employees have access to at least some types of flexible working arrangements (such as flextime and telework). Indeed, the utility of promoting work–life balance by expanding access to flexible working-time arrangements, as well as telework, was reflected in the conclusions of the third recurrent discussion on employment adopted by the International Labour Conference in June 2022.²⁹

Finally, when considering how to achieve balanced working-time arrangements, the issue of constant availability for work due to ICT connectivity also needs to be considered. This is an emerging issue for which only a few initiatives, in a small number of countries, have been undertaken thus far. Many of these initiatives reflect a new policy approach, known as the “right to be disconnected” (R2D), which is a potentially effective response to the blurring of boundaries between paid working time and those times normally reserved for personal life. This approach attempts to limit the negative effects of ICTs by protecting employees’ non-working time in order to address these work–life conflict and well-being issues.³⁰

29 “Measures to support work–life balance, including through regulatory frameworks that may allow for requesting flexible working time arrangements and telework, whilst ensuring and respecting limits on working time and protection for workers’ disconnection, according to national regulation and agreement between the parties.” See ILO, [Resolution and conclusions concerning the third recurrent discussion on employment](#), International Labour Conference, 110th Session, 2022, Conclusions, para. 11(q).

30 For detailed recommendations on effective teleworking practices, including disconnection from work (which may be a legal right or simply a good practice), see ILO (2020).

6.2.3 Conclusion

The ILO Declaration of Philadelphia states that “all human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security, and equal opportunity” (Art. II(a)). In other words, paid work is about more than just meeting workers’ material needs; they also need to have the opportunity for fulfilling personal lives; that is, they need to be able to achieve a healthy work–life balance.

As we have seen in this report, the two main components of working time – hours of work and working-time arrangements (work schedules) – are key factors in determining how well workers are able to balance their paid work with their personal lives, including their family responsibilities and other personal needs. For example, long hours of work (> 48 hours per week) have a negative effect on workers’ work–life balance, while shorter hours of work may help to facilitate work–life balance and may also promote increased productivity at the same time. Working-time arrangements with predictable schedules and a degree of working-time autonomy may also help workers to achieve a better work–life balance, while arrangements with unpredictable work schedules have the opposite effect. By developing and implementing progressive policies and practices in line with the principles of decent working time, both workers and employers can reap the benefits of a healthy work–life balance.

6.3. References

Fagan, Colette, et al. 2014. *In Search of Good Quality Part-Time Employment: An International Review*. Conditions of Work and Employment Series No. 43. ILO.

Golden, Lonnie. 2012. *The Effects of Working Time on Productivity and Firm Performance: A Research Synthesis Paper*. Conditions of Work and Employment Series No. 33. ILO.

Graham-McLay, Charlotte. 2018. "A 4-day Workweek? A Test Run Shows A Surprising Result". *The New York Times*, 19 July.

Haraldsson, Guðmundur, and Jack Kellam. 2021. *Going Public: Iceland's Journey to a Shorter Working Week*. Autonomy.

Iceland, Reykjavík City. 2018. *Shortening the Workweek*.

---. 2019. "Experimental Project on Shortening the Working Week at the State Level: Report on the Results of Opinion Polls and Economic Measurements after a Twelve-Month Attempt to Shorten Working Hours".

IG Metall. 2018. Press release on the outcomes of the collective agreement signed on 5 February 2018, in force from 1 January 2018 to 31 March 2020.

ILO. 2007. *Decent Working Time: Balancing Workers' Needs with Business Requirements*. ILO.

---. 2016. *Non-Standard Employment around the World: Understanding Challenges, Shaping Prospects*.

---. 2019. *Guide to Developing Balanced Working Time Arrangements*.

---. 2020. *Teleworking during the COVID-19 Pandemic and Beyond: A Practical Guide*.

Kassam, Ashifa. 2021. "Spain to Launch Trial of Four-Day Working Week". *The Guardian*.

Lockhart, Charlotte. 2022. "UK Companies in 4 Day Week Pilot Reach Landmark Halfway Point". Press release, 21 September. 4 Day Week Global.

Messenger, Jon. 2018. *Working Time and the Future of Work*. ILO Future of Work Research Paper Series No. 6.

Messenger, Jon C., and Naj Ghosheh, eds. 2013. *Work-Sharing during the Great Recession: New Developments and Beyond*. Edward Elgar Publishing and ILO.

planetlabor.com. 2021. "Colombia: Working Week Lowered from 48 to 42 Hours".

Annex 1. Classification of countries/territories by income group (per capita gross national income)

Developing (low-income: US\$1,005 or less)	Emerging (middle-income/ lower-middle-income: US\$1,006 to US\$3,955)	Emerging (upper-middle income: US\$3,956 to US\$12,235)	Developed (high-income: US\$12,236 or more)
Afghanistan	Angola	Albania	Australia
Benin	Armenia	Algeria	Austria
Burkina Faso	Bangladesh	Azerbaijan	Bahamas
Burundi	Bhutan	Belarus	Bahrain
Central African Republic	Bolivia (Plurinational State of)	Belize	Barbados
Chad	Cabo Verde	Bosnia and Herzegovina	Belgium
Comoros	Cambodia	Botswana	Brunei Darussalam
Democratic People's Republic of Korea	Cameroon	Brazil	Canada
Democratic Republic of the Congo	Congo	Bulgaria	Channel Islands
Eritrea	Côte d'Ivoire	China	Chile
Ethiopia	Djibouti	Colombia	Cyprus
Gambia	Egypt	Costa Rica	Czechia
Guinea	El Salvador	Croatia	Denmark
Guinea-Bissau	Eswatini	Cuba	Estonia
Haiti	Georgia	Dominican Republic	Finland
Liberia	Ghana	Ecuador	France
Madagascar	Guatemala	Equatorial Guinea	French Polynesia
Malawi	Honduras	Fiji	Germany
Mali	India	Gabon	Greece
Mozambique	Indonesia	Guyana	Guam
Nepal	Jordan	Iran (Islamic Republic of)	Hong Kong (China)
Niger	Kenya	Iraq	Hungary
Rwanda	Kyrgyzstan	Jamaica	Iceland
Senegal	Lao People's Democratic Republic	Kazakhstan	Ireland
Sierra Leone	Lesotho	Lebanon	Israel
Somalia	Mauritania	Libya	Italy
Tanzania (United Republic of)	Mongolia	Malaysia	Japan
Togo	Morocco	Maldives	Kuwait
Uganda	Myanmar	Mauritius	Latvia
Zimbabwe	Nicaragua	Mexico	Lithuania
	Nigeria	Montenegro	Luxembourg
	Occupied Palestinian Territory	Namibia	Macau (China)
	Pakistan	North Macedonia	Malta
	Papua New Guinea	Panama	Netherlands
	Philippines	Paraguay	New Caledonia
	Republic of Moldova	Peru	New Zealand
	Sao Tome and Principe	Romania	Norway
	Solomon Islands	Russian Federation	Oman
	Sri Lanka	Saint Lucia	Poland
	Sudan	Saint Vincent and the Grenadines	Portugal
	Syrian Arab Republic	Samoa	Puerto Rico
	Tajikistan	Serbia	Qatar
	Timor-Leste	South Africa	Republic of Korea
	Tunisia	Suriname	Saudi Arabia
	Ukraine	Thailand	Singapore
	Uzbekistan	Tonga	Slovakia
	Vanuatu	Türkiye	Slovenia
	Viet Nam	Turkmenistan	Spain
	Western Sahara	Venezuela (Bolivarian Republic of)	Sweden
	Yemen		Switzerland
	Zambia		Taiwan (China)
			Trinidad and Tobago
			United Arab Emirates
			United Kingdom
			United States
			United States Virgin Islands
			Uruguay

Annex 2. Classification of countries/territories by region

Africa**Northern Africa**

Algeria
Egypt
Libya
Morocco
Sudan
Tunisia
Western Sahara

Sub-Saharan Africa*Central Africa*

Angola
Cameroon
Central African Republic
Chad
Congo
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Sao Tome and Principe

Eastern Africa

Burundi
Comoros
Djibouti
Eritrea
Ethiopia
Kenya
Madagascar
Malawi
Mauritius
Mozambique
Rwanda
Somalia
Tanzania (United Republic of)
Uganda
Zambia
Zimbabwe
Southern Africa
Botswana
Eswatini
Lesotho
Namibia
South Africa

Southern Africa

Botswana
Eswatini
Lesotho
Namibia
South Africa

Western Africa

Benin
Burkina Faso
Cabo Verde
Côte d'Ivoire
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Niger
Nigeria
Senegal
Sierra Leone
Togo

Americas**Latin America and the Caribbean***The Caribbean*

Bahamas
Barbados
Cuba
Dominican Republic
Haiti
Jamaica
Puerto Rico
Saint Lucia
Saint Vincent and the Grenadines
Trinidad and Tobago
United States Virgin Islands

Central America

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama

South America

Argentina
Bolivia (Plurinational State of)
Brazil
Chile
Colombia
Ecuador
Guyana
Paraguay

Peru

Suriname
Uruguay
Venezuela (Bolivarian Republic of)

Northern America

Canada
United States

Arab States

Bahrain
Iraq
Jordan
Kuwait
Lebanon
Occupied Palestinian Territory
Oman
Qatar
Saudi Arabia
Syrian Arab Republic
United Arab Emirates
Yemen

Asia and the Pacific**Eastern Asia**

China
Democratic People's Republic of Korea
Hong Kong (China)
Japan
Macau (China)
Mongolia
Republic of Korea
Taiwan (China)

South-Eastern Asia and the Pacific

Pacific Islands
Australia
Fiji
French Polynesia
Guam
New Caledonia
New Zealand
Papua New Guinea
Samoa
Solomon Islands
Tonga
Vanuatu

South-Eastern Asia

Brunei Darussalam
Cambodia
Indonesia
Lao People's Democratic Republic
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Viet Nam

Southern Asia

Afghanistan
Bangladesh
Bhutan
India
Iran (Islamic Republic of)
Maldives
Nepal
Pakistan
Sri Lanka

Europe and Central Asia**Central and Western Asia**

Central Asia
Kazakhstan
Kyrgyzstan
Tajikistan
Turkmenistan
Uzbekistan

Western Asia

Armenia
Azerbaijan
Cyprus
Georgia
Israel
Türkiye

Eastern Europe

Belarus
Bulgaria
Czechia
Hungary
Poland
Republic of Moldova
Romania
Russian Federation
Slovakia
Ukraine

Northern, Southern and Western Europe*Northern Europe*

Channel Islands
Denmark
Estonia
Finland
Iceland
Ireland
Latvia
Lithuania
Norway
Sweden
United Kingdom

Southern Europe

Albania
Bosnia and Herzegovina
Croatia
Greece
Italy
Malta
Montenegro
North Macedonia
Portugal
Serbia
Slovenia
Spain

Northern, Southern and Western Europe

Austria
Belgium
France
Germany
Luxembourg
Netherlands
Switzerland

Annex 3. National sources: List of household surveys

Country/territory	Year	Survey name
Afghanistan	2017	Living Conditions Survey
Albania	2019	Labour Force Survey
Angola	2009	Inquérito Integrado sobre o Bem-estar da População
Argentina	2019	Encuesta Permanente de Hogares
Armenia	2019	Labour Force Survey
Australia	2019	The Household, Income and Labour Dynamics in Australia (HILDA)
Austria	2019	European Union Labour Force Survey
Bangladesh	2017	Labour Force Survey
Barbados	2019	Labour Force Survey
Belgium	2019	European Union Labour Force Survey
Belize	2019	Labour Force Survey
Benin	2018	Enquête Modulaire Intégrée sur les Conditions de Vie des Ménages
Bolivia (Plurinational State of)	2019	Encuesta de Hogares
Bosnia and Herzegovina	2019	Labour Force Survey
Botswana	2019	Continuous Multi-Topic Household Survey
Brazil	2019	Pesquisa Nacional por Amostra de Domicílios Contínua
Brunei Darussalam	2019	Labour Force Survey
Bulgaria	2019	European Union Labour Force Survey
Burkina Faso	2018	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel
Burundi	2014	Enquête sur les conditions de vie des ménages
Cabo Verde	2015	Inquérito sobre o salário mínimo
Cambodia	2019	Labour Force Survey
Cameroon	2014	Quatrième Enquête Camerounaise auprès des Ménages (ECAM4)
Canada	2019	Labour Force Survey
Chile	2019	Encuesta Nacional del Empleo
China	2013	China Household Income Project
Colombia	2019	Gran Encuesta Integrada de Hogares
Comoros	2014	Enquête sur l'emploi et le secteur informel aux Comores
Congo	2009	Enquête sur l'emploi et le secteur informel
Congo, Democratic Republic of	2012	Enquête sur l'emploi, le secteur informel et sur la consommation des ménages (Enquête 1-2-3)
Cook Islands	2019	Labour Force Survey
Costa Rica	2019	Encuesta Nacional de Hogares
Côte d'Ivoire	2019	Enquête Nationale sur l'Emploi
Croatia	2019	European Union Labour Force Survey
Cyprus	2019	European Union Labour Force Survey
Czechia	2019	European Union Labour Force Survey
Denmark	2019	European Union Labour Force Survey

Annex 3. National sources: List of household surveys (continued)

Country/territory	Year	Survey name
Djibouti	2017	Quatrième Enquête Djiboutienne auprès des Ménages pour les Indicateurs Sociaux
Dominican Republic	2019	Encuesta Nacional Continua de Fuerza de Trabajo
Ecuador	2019	Encuesta Nacional de Empleo, Desempleo y Subempleo
Egypt	2019	Labour Force Survey
El Salvador	2019	Encuesta de Hogares de Propósitos Múltiples
Estonia	2019	European Union Labour Force Survey
Eswatini	2016	Labour Force Survey
Ethiopia	2013	Labour Force Survey
Fiji	2016	Employment and Unemployment Survey
Finland	2019	European Union Labour Force Survey
France	2019	European Union Labour Force Survey
Gabon	2005	Direction Générale de la Statistique et des Etudes Economiques, Core Welfare Indicators Questionnaire Survey
Gambia	2018	Labour Force Survey
Georgia	2019	Labour Force Survey
Germany	2019	European Union Labour Force Survey
Ghana	2015	Labour Force Survey
Greece	2019	European Union Labour Force Survey
Guatemala	2019	Encuesta Nacional de Empleo e Ingresos
Guinea-Bissau	2018	Inquérito Harmonizado sobre as Condições de Vida dos Agregados Familiares
Guyana	2019	Labour Force Survey
Haiti	2012	Enquête sur les conditions de vie des ménages
Honduras	2019	Encuesta de Hogares de Propósitos Múltiples
Hungary	2019	European Union Labour Force Survey
Iceland	2019	European Union Labour Force Survey
India	2019	Periodic Labour Force Survey
Indonesia	2019	National Labour Force Survey
Iran (Islamic Republic of)	2019	Labour Force Survey
Iraq	2012	Household Socio Economic Survey
Ireland	2019	European Union Labour Force Survey
Israel	2017	Labour Force Survey
Italy	2019	European Union Labour Force Survey
Jamaica	2019	Labour Force Survey
Japan	2015	International Social Survey Programme
Jordan	2019	Labour Force Survey
Kenya	2019	Kenya Integrated Household Budget Survey
Kiribati	2019	Household Income and Expenditure Survey
Kosovo	2019	Labour Force Survey
Kyrgyzstan	2018	Labour Force Survey
Lao Peoples Democratic Republic	2017	Labour Force Survey
Latvia	2019	European Union Labour Force Survey
Lebanon	2019	Labour Force Survey
Lesotho	2019	Labour Force Survey

Annex 3. National sources: List of household surveys (continued)

Country/territory	Year	Survey name
Liberia	2017	Labour Force Survey
Lithuania	2019	European Union Labour Force Survey
Luxembourg	2019	European Union Labour Force Survey
Madagascar	2015	Enquête Nationale sur l'Emploi et le secteur Informel
Malawi	2012	Labour Force Survey
Maldives	2016	Household Income and Expenditure Survey
Mali	2018	Enquête Modulaire et Permanente auprès des Ménages
Malta	2019	European Union Labour Force Survey
Marshall Islands	2018	Household Income and Expenditure Survey
Mauritania	2017	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel
Mauritius	2019	Continuous Multi-Purpose Household Survey
Mexico	2019	Encuesta Nacional de Ocupación y Empleo
Micronesia	2014	Household Income and Expenditure Survey
Mongolia	2019	Labour Force Survey
Montenegro	2019	Labour Force Survey
Morocco	2010	Morocco Household and Youth Survey
Mozambique	2015	Inquérito aos Orçamentos Familiares
Myanmar	2019	Labour Force Survey
Namibia	2018	Labour Force Survey
Nauru	2013	Household Income and Expenditure Survey
Nepal	2017	Labour Force Survey
Netherlands	2019	European Union Labour Force Survey
New Zealand	2015	International Social Survey Programme
Nicaragua	2014	Encuesta Nacional de Hogares sobre la Medición del Nivel de Vida
Niger	2017	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel
Nigeria	2019	General Household Survey Panel
North Macedonia	2019	Labour Force Survey
Norway	2019	European Union Labour Force Survey
Pakistan	2019	Labour Force Survey
Palau	2014	Household Income and Expenditure Survey
Panama	2019	Encuesta de Mercado Laboral
Paraguay	2019	Encuesta Permanente de Hogares
Peru	2019	Encuesta Nacional de Hogares
Philippines	2019	Labour Force Survey
Poland	2019	European Union Labour Force Survey
Portugal	2019	European Union Labour Force Survey
Republic of Korea	2019	Labour Force Survey
Republic of Moldova	2018	Labour Force Survey
Romania	2019	European Union Labour Force Survey
Russian Federation	2019	Labour Force Survey

Annex 3. National sources: List of household surveys (continued)

Country/territory	Year	Survey name
Rwanda	2019	Labour Force Survey
Saint Lucia	2019	Labour Force Survey
Samoa	2017	Labour Force Survey
Saudi Arabia	2019	Labour Force Survey
Senegal	2016	Enquête Nationale sur l'Emploi au Sénégal
Serbia	2019	Labour Force Survey
Seychelles	2019	Labour Force Survey
Sierra Leone	2014	Labour Force Survey
Singapore	2020	Labour Force Survey
Slovakia	2019	European Union Labour Force Survey
Slovenia	2019	European Union Labour Force Survey
Solomon Islands	2013	Household Income and Expenditure Survey
South Africa	2019	Quarterly Labour Force Survey (QLFS)
Spain	2019	European Union Labour Force Survey
Sri Lanka	2018	Labour Force Survey
Suriname	2016	Suriname Survey of Living Conditions
Sweden	2019	European Union Labour Force Survey
Switzerland	2019	European Union Labour Force Survey
Taiwan (China)	2015	International Social Survey Programme
Tajikistan	2009	Living Standards Measurement Study
Tanzania	2020	Labour Force Survey
Thailand	2019	Labour Force Survey
Timor Leste	2016	Labour Force Survey
Togo	2017	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel
Tonga	2018	Labour Force Survey
Trinidad and Tobago	2016	Continuous Sample Survey of Population
Tunisia	2014	Labour Market Panel Survey
Türkiye	2019	Labour Force Survey
Tuvalu	2016	Household Income and Expenditure Survey
Uganda	2017	Labour Force Survey
United Arab Emirates	2019	Labour Force Survey
United Kingdom	2019	Labour Force Survey
United States	2019	Current Population Survey
Uruguay	2019	Encuesta Continua de Hogares
Vanuatu	2019	Household Income and Expenditure Survey
Venezuela (Bolivarian Republic of)	2017	Encuesta de Hogares por Muestreo
Viet Nam	2019	Labour Force Survey
West Bank and Gaza Strip	2019	Labour Force Survey
Yemen	2014	Labour Force Survey
Zambia	2019	Labour Force Survey
Zimbabwe	2019	Labour Force Survey

Annex 4. Methodological annex in relation to the regional and global estimates presented in Chapter 2

The global and regional estimates presented in Chapter 2 refer to the number of actual hours of work per week³¹ for pay or profit among persons in employment aged 15 and over. To ensure comparability across countries and to take into account the absence of information on hours spent on additional jobs in some countries, the estimates consider the hours worked on the main job only. Access to microdata which was representative at the national level allowed for the systematic coding of hour bands and the analysis of differences in working-time patterns based on socio-demographic characteristics and employment-related features, including status in employment, sector, occupation, and the informal or formal nature of employment by sex.

Two main types of indicators are presented in Chapter 2, as follows.

(i) *Average number of actual hours of work per week.* While this indicator's main advantage is to provide a single value corresponding to the mean value of the number of hours actually worked globally, regionally or for particular groups of workers, it fails to provide data on the distribution of persons in employment in relation to their hours of work. As Chapter 2 shows, two groups of workers may have a similar average number of actual hours of work per week and yet may face very different situations in terms of their distribution along the spectrum of actual hours of work per week. Workers in informal employment compared with workers in formal employment provide a good example. There is a convergence towards just over 44 hours of work per week for both groups at the global level. Yet, while the majority of workers in formal employment are more likely to work within the range of "normal hours", workers in informal employment are over-represented at the two extremes — either long or short (part-time) hours of work — with implications in terms of income, the ability to meet eligibility criteria for social security benefits, exposure to health and safety risks, and work-life balance. The second category of indicators on the distribution of workers by hours of work per week is essential to fill this gap.

(ii) *Distribution of persons in employment by hour bands.* This allows the identification of workers within or outside what can be considered as the "normal range" of hours of work per week, namely 35 to 48 hours per week (figure A.4.1). Workers considered to be "outside the range of normal working hours" include workers who work part-time hours (short hours or less than 35 hours per week), including a subcategory who work very short hours (less than 20 hours per week); they also include workers who work long hours (more than 48 hours per week).

► **Figure A.4.1 Working time thresholds used to categorize workers based on their actual number of hours of work per week**



31 For the concepts of actual hours of work and usual hours of work, see ILO, [Resolution concerning the measurement of working time](#), Eighteenth International Conference of Labour Statisticians, 2008. Usual hours of work were considered only when the information on actual hours of work was not available.

For the global estimates, a consistent and unified coding of actual hours of work was applied to microdata from national household surveys of 160 countries.³² Those 160 countries represent 81.2 per cent of the 187 ILO Member States and 95.3 per cent of the 2019 world's working population aged 15 and over (table A.4.1).

► **Table A.4.1 Coverage of the ILO's statistical database on working time, 2019**

	Number of countries covered	Country coverage (percentages)	Employment coverage (percentages)
World	160	81.2	95.3
By broad region and subregion			
Africa	43	78.2	90.1
Northern Africa	3	42.9	63.5
Sub-Saharan Africa	40	83.3	94.5
Americas	28	84.8	98.7
Latin America and the Caribbean	26	83.9	97.9
Northern America	2	100.0	100.0
Arab States	7	58.3	76.0
Asia and the Pacific	37	80.4	98.0
Eastern Asia	5	62.5	97.7
South-Eastern Asia and the Pacific	23	82.1	94.7
Southern Asia	9	90.0	99.9
Europe and Central Asia	37	80.4	98.0
Northern, Southern and Western Europe	30	100.0	100.0
Eastern Europe	8	80.0	83.0
Central and Western Asia	7	63.6	57.9
By country-income group			
Low-income countries	20	69.0	78.9
Middle-income countries	88	84.6	96.3
Lower-middle-income countries	44	86.3	95.6
Upper-middle-income countries	44	83.0	96.9
High-income countries	52	81.3	97.7

32 ILOSTAT microdata sets have been used for a large number of countries.

Global and regional estimates for 2019 as a benchmark. Global estimates on the number and proportions of workers aged 15 and over based on their actual number of hours of work in the main job have a benchmark year of 2019. Input data from individual countries range from 2005 to 2020,³³ with 68 per cent of the countries referring to 2018 or 2019. Benchmark employment data from 2019 used for extrapolation were derived from the ILO modelled estimates series.³⁴

Given that countries with missing data represent less than 5 per cent of global employment, there were no direct estimations of missing data for countries without available information. For a given indicator, the global and regional estimates of proportions (such as the share of persons in employment who work less or above given thresholds of actual hours of work) are derived from the weighted average of national proportions for the latest year available (based on the sources listed in Annex 3). The weight applied to each country or territory corresponds to the denominator of the indicator under consideration, using 2019 data from ILO modelled estimates series for total employment by sex, status in employment, occupations and sectors, as appropriate. Regional groupings retained in this report refer to two levels – ILO broad regions and ILO broad subregions³⁵ (see Annex 2). The classification of countries or areas by income group is based on the World Bank's classification of countries/territories into four income groups (see Annex 1).

33 Data before 2010 concerns four countries: one in 2005 and three in 2009; data for 2020 concerns two countries for which no other data close to the benchmark year of 2019 was available.

34 See ILO, “[ILO Modelled Estimates and Projections \(ILOEST\)](#)”. The update of November 2021 has been used in this report.

35 See ILO, “[Country Groupings](#)”, where countries or areas are grouped by ILO region and World Bank income group.

