

Europe After Hours: Mapping Non-Standard Working Time

Report on non-standard working time rewards in the ESES

December 2025

Deliverable: 3.3
Work package: 3

BARTIME

BARTIME

Most Collective Agreements (CBAs) fix pay levels based on a standard working week and typically include provisions for monetary rewards related to non-standard working hours. However, there is a lack of understanding of the specificities of these provisions across European countries. BARTIME examines the rewards for non-standard hours across 24 EU countries. BARTIME aims to contribute to the social dialogue in Europe by deepening the understanding of monetary rewards of non-standard working time arrangements and the related agreements in collective bargaining.

BARTIME is led by the WageIndicator Foundation and is joined in the project by University of Utrecht, Central European Labour Studies Institute (CELSI) and the University of Girona. The European Trade Union Institute (ETUI) is associate partner to the project.

WageIndicator Foundation

WageIndicator Foundation is a global, independent, non-profit organisation operating in 208 countries across the world that collects, analyses and shares information on Minimum Wages, Salaries, Living Wages, Living Income and Living Tariff, Labour Laws, Collective Agreements and Gig and Platform Work. It aims to improve labour market transparency for workers, employers and policy makers worldwide by providing accessible labour market information worldwide through 220 websites in 70+ national languages.

Utrecht University

University of Utrecht (UU), Department of Interdisciplinary Social Sciences, in the Netherlands is one of the largest Dutch universities with over 35,000 students. The Department of Interdisciplinary Social Sciences has a staff of more than a hundred professors, assistant professors, and PhD and post doc researchers. Its research covers issues such as discrimination in the job market, reintegration at work, growing up in a multicultural neighbourhood, developing your individual identity, high-risk behaviour in young people, growing inequality and the accessibility of care.

Central European Labour Studies Institute (CELSI)

Central European Labour Studies Institute (CELSI) is a non-profit research institute based in Bratislava, Slovakia. It fosters multidisciplinary research about the functioning of labour markets and institutions, work and organizations, business and society, and ethnicity and migration in the economic, social, and political life of modern societies. CELSI strives to make a contribution to the cutting-edge international scientific discourse.

University of Girona

The University of Girona's Department of Economics is affiliated to the Faculty of Economics and Business Sciences and offers teaching in several bachelor's and master's degree studies. The department is very active in research and its interests range from statistics, applied economics and health to public economics, services and industry. Its research covers issues such as labor economics, monetary policy, basic income, transition economies, and the impact of education on the labor market.

Funding



BARTIME is funded by the European Commission through its Social Dialogue Program SOCPL-2022-IND-REL-01 under project number 101126498. The project runs from January 2023 until December 2025.

Disclaimer: The information and views set out in this page are those of the author(s) and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Bibliographical information

Elias Moreno, F & Besamusca, J. (2025). Europe After Hours: Mapping Non-Standard Working Time. *BARTIME Report 5*. WageIndicator Foundation, Utrecht University, Central European Labour Studies Institute, University of Girona.

Acknowledgements

The analyses for this report were possible by the hard work and expertise of everyone involved in the collection and coding of collective agreements included in the WageIndicator CBA Database. It would not have been possible without the database managers: Gabriele Medas and Daniela Ceccon. Nor indeed, would it have been possible without the dedicated work of the team of coders: Adib Ahmed, Jozefa Barreto, Janna Besamusca, Mariana Bikova, Szilvia Borbély, Daniela Ceccon, Armanda Cetrulo, Ceyhun Güler, Nina Holičková, Eva Lotta Lindma, Gabriele Medas, Engin Özcan, Gunjan Pandya, Serhii Shokha and Sandra Siniväli.

Contact

Ferran Elias Moreno (ferran.elias@udg.edu) and Janna Besamusca (J.W.Besamusca@uu.nl)

© 2025. WageIndicator Foundation, Utrecht University, Central European Labour Studies Institute, University of Girona. All rights reserved.

1. Introduction

In recent years, non-standard working hours have become a prominent concern in both scientific research and public debate across Europe. Societal expectations for around-the-clock convenience—such as late-evening grocery shopping, Sunday retail access, rapid global delivery of consumer goods, and weekday dining options—have contributed to the rise of work schedules that are increasingly flexible, extended, and irregular (Arrowsmith & Pulignano, 2013; Burgoon & Raess, 2009; Doellgast & Berg, 2018).

These developments reflect structural economic shifts that prioritise immediacy and availability, placing new demands on organisations and workers alike (Anttila & Oinas, 2018; Dablanc et al., 2017). In addition to these structural drivers, long work hour cultures that interpret unpaid overtime in evenings and weekends as a sign of job- and career-commitment, have emerged in some countries and sectors, like in consultancy and legal services (Chung, 2020; Wharton & Blair-Loy, 2016; Williams et al., 2013).

Concerns about burnout and mental health are widespread, as many employees continue to experience elevated workloads and regularly work beyond standard hours due to expanding opening times, extended production cycles, and persistent organisational demands (Hu et al., 2016; Rabenu & Aharoni-Goldenberg, 2017; Ruderman et al., 2017; Weston et al., 2024). Concerns are particularly large in regard to mothers – or fathers with substantial caregiving tasks -, who combine time-intensive jobs with care responsibilities, or experience negative career impacts from being unable to work long and non-standard hours (Blair-Loy, 2005; Tanquerel & Grau-Grau, 2020; Williams et al., 2013).

The aim of this study is two-fold. First, this study aims to understand how prevalent these non-standard hours are across EU member states, across sectors and between different socio-demographic groups. Secondly, in order to assess whether non-standard hours constitute a potential pathway out of low pay, we study how working-time patterns potentially shape the distribution of earnings and the likelihood of reaching adequate wage levels. In so doing, this report showcases results from the BARTIME project on the monetary rewards of working time dimensions in collective bargaining and in the working population, co-funded by the European Commission's Directorate General for Employment, Social Affairs and Inclusion (Project No. 101126498).

In the following sections of this report, we first briefly review the current knowledge on the institutional, economic and cultural contexts that drive different groups of employees to work non-standard hours, including work in nights and evenings, weekends, shifts, and overtime. Section 3 introduces the data used for this report and measurement strategy taken. The findings of the study are presented in section 4, and core take-aways summarized in the concluding 5th section.

2. Theoretical Framework

2.1 Prevalence of Non-Standard Hours

Non-standard working hours refer to schedules that deviate from the traditional full-time work week or extend beyond the regular 9-to-5, Monday-to-Friday pattern of operation (Anxo & Karlsson, 2019; Rubery et al., 2005). They encompass a wide range of arrangements, including evening and night work, weekend shifts, rotating shift systems, as well as both reduced (part-time) and extended (overtime) hours (Anxo & Karlsson, 2019; Chung, 2020; Hart & Ya, 2010; Lirio et al., 2005). The incidence of such working-time patterns has been shaped by economic and societal changes that often require labour to be deployed in the evenings, overnight, at weekends, and at peak times when overtime may be needed to meet fluctuating demand (Hu et al., 2016; Rabenu & Aharoni-Goldenberg, 2017; Ruderman et al., 2017; Weston et al., 2024). Globalisation, the expansion of service-based economies, just-in-time production models, and the rise of on-demand consumer expectations all contribute to organisational pressures for availability beyond standard hours (Arrowsmith & Pulignano, 2013; Burgoon & Raess, 2009; Doellgast & Berg, 2018).

Data from Eurostat and the OECD illustrate the extent to which European workers engage in non-standard hours. Eurostat (2025a) reports substantial variation in the share of workers who usually work more than 45 hours per week, ranging from 2.5% in Bulgaria to 21% in Greece. OECD figures similarly show large cross-national differences in very long hours: while only about 1% of Dutch workers regularly exceed 50 hours per week, the proportion rises to more than 10% in the United Kingdom.

Patterns of work beyond standard operating times are equally diverse. In 2023, around 22% of EU workers were estimated to regularly work at weekends, although prevalence varied widely—from just 3.9% in Lithuania to 41.3% in Greece (Eurostat, 2025e). Shift work was reported by 18% of European workers, with rates ranging from 6.5% in France to 36% in Greece (Eurostat, 2025b). Night and evening work also showed notable disparities: 4.6% of workers across the EU were employed in night shifts and 12.9% in evening shifts, but these figures ranged from 1.6% and 5.2% respectively in Lithuania to 11.2% and 35.6% in Slovakia and Greece (Eurostat 2025c; Eurostat 2025d). Together, these statistics underscore the significant and uneven presence of non-standard hours in contemporary European labour markets.

2.2 Why the incidence non-standard hours may be concentrated at the bottom of the wage distribution

The extent to which employees are asked—or willing—to work non-standard hours varies substantially within countries - across sectors, occupations, skill levels and gender (Bishow, 2009; Conway & Sturges, 2014; Datta et al., 2007; Hart, 2004; Jirjahn, 2008; Lewis et al., 2014; Presser et al., 2008; Tajji & Mills, 2020). A central explanatory factor is the nature of the job itself, understood as the combination of the occupation performed and the sector, firm or workplace in which it is embedded (Ahonen et al., 2018; Eurofound 2025; Eurofound & JRC, 2021; Landsbergis et al., 2018). Certain occupations inherently involve greater exposure to irregular or extended hours, while

sector-specific modes of production and service delivery further shape when and how work must be carried out (Leschke, 2015; Richbell et al., 2011). As a result, patterns of non-standard working time tend to cluster within particular occupational and sectoral domains.

Examples of this structuring are well documented and show that a notable share of jobs associated with non-standard schedules is concentrated in low- and mid-wage segments of the labour market (Leschke, 2015; Peetz et al., 2019; Richbell et al., 2011). Healthcare workers, such as nurses, frequently work nights, evenings, and weekends due to the need to provide continuous service to patients (Bernstrøm et al., 2019; de Tavernier et al., 2023; Weaver et al., 2023). Similarly, jobs in hospitality—such as restaurant and hotel waiting staff—almost universally involve non-standard hours because business activity peaks outside traditional working times (Lewis, 2014; Piso, 2022). Shift work is commonly associated with factory work and other manufacturing environments, like in the metal sector, where the extension of the number of hours per day that machinery is manned, yields large productivity increases (Haipeter & Lehndorff, 2005; IIsøe, 2012). In countries where sector-level collective bargaining is common, such as Austria, the Netherlands, and Italy, patterns of non-standard working hours may be even more similar, as firms within the same sector also fall under a unified collective agreement (OECD & AIAS, 2025). These agreements often stipulate the conditions under which non-standard hours are permitted or required, further reinforcing sector-specific patterns (Besamusca, 2025b; Paolucci & Galetto, 2020). Taken together, these dynamics highlight how institutional, organisational, and job-related factors intersect to shape who works non-standard hours, especially in the lower half of the wage distribution.

2.3 Why the incidence non-standard hours may be concentrated at the top of the wage distribution

While the nature of production processes themselves largely explain the prevalence of non-standard working hours in lower-paid jobs, research suggests that other factors lead to similar increases in non-standard hours in professional and managerial occupations in the upper half of the wage distribution. In these roles, the growth of overtime, evening, night, and weekend work is often driven less by operational necessity and more by socio-cultural expectations embedded in organisational cultures (Wharton & Blair-Loy, 2016; Williams et al., 2013). High workloads, blurred boundaries between work and personal time, and informal job requirements contribute to the normalisation of long and irregular hours in sectors such as consultancy, finance, and information technology (Berdahl et al., 2018; Blair-Loy & Williams, 2017; Chung, 2020).

In such contexts, working beyond standard hours frequently serves as a signal of commitment, ambition, and loyalty to one's job or career, even when these hours are not strictly required by the nature of the work (Berdahl et al., 2018; Blair-Loy, 2005). Scholars have cautioned that this can foster what Chung (2020) describes as "self-exploitation", whereby employees voluntarily exceed formal job requirements—often without immediate financial compensation—in pursuit of productivity, quality, or career advancement. The performance of busyness itself becomes a valued marker of the ideal worker, reinforcing cultural norms in which being, or appearing, constantly occupied is equated with diligence and worth (Graeber, 2013).

A growing body of literature also shows that these heightened expectations of availability and commitment create new inequalities across the workforce. Work–family responsibilities, in particular, can constrain participation in long-hours cultures, thereby generating socio-demographic inequalities in career progression and rewards (Chung, 2020; Lewis et al., 2014; Presser et al., 2008; Tajji & Mills, 2020).

3. Data Sources

3.1 Labour Force Survey (LFS)

This work package relies on microdata from the European Union Labour Force Survey (EU-LFS), a harmonised household survey conducted quarterly across all EU Member States. The LFS provides detailed and internationally comparable information on employment patterns, working hours, and job characteristics, making it well suited for analysing the incidence of non-standard working time across countries and sectors. The dataset contains variables on evening work, night work, weekend work (Saturday and Sunday), shift work, overtime, and a wide set of individual socio-demographic and job-related characteristics.

For the purposes of this study, we extract the subset of employees and classify them into country–sector pairs based on the sectoral codes available in the LFS. The analysis makes use of variables identifying paid overtime, unpaid overtime, and total usual hours worked, which allows us to quantify the extent of non-standard hours and examine how these patterns vary across the wage distribution.

The LFS serves two main analytical functions in WP3. First, it provides a comprehensive picture of the incidence of non-standard working hours—including evening, night, shift, Saturday, and Sunday work—across countries, sectors, and wage levels. Second, it enables the measurement of paid and unpaid overtime hours, which is essential for assessing how much additional work is performed outside standard schedules and for estimating how workers' earnings would change if unpaid overtime were remunerated. Combining these features with wage information from the SES allows us to explore how working-time patterns shape the distribution of earnings and the likelihood of reaching adequate wage levels.

Table 1 - Overview of main variables from the Labour Force Survey

Main variables from the Labour Force Survey used in the analysis	
Overtime	Binary indicator (yes/no) measuring whether the work hour is overtime or not.
Shift work	Binary indicator (yes/no) measuring whether the worker does shift work or not.
Evening work	Binary indicator (yes/no) measuring whether the worker does evening work or not.

Night work	Binary indicator (yes/no) measuring whether the worker does night work or not.
Saturday work	Binary indicator (yes/no) measuring whether the employee works on Saturday or not.
Sunday work	Binary indicator (yes/no) measuring whether the employee works on Sunday or not.
Income Decil	Decile in the earnings distribution where the worker is.
HWOVERP	Paid overtime in the reference week in the main job
HWOVERPU	Unpaid overtime in the reference week in the main job
Sector	One digit sector identifier.
Country	Country variable.
Survey weight	We use it to ensure each observation represents the appropriate number of people in the population.

4. The Incidence of Non-Standard Hours

This section documents the incidence of non-standard hours—including evening work, night work, weekend work, shift work, and overtime—across countries and sectors. By mapping these patterns, we provide a comprehensive overview of when workers are most likely to engage in work outside standard daytime schedules.

4.1 Incidence of Evening Hours

Figure 1 displays the share of workers performing paid evening work across country–sector pairs. Evening work is considerably widespread, though still strongly patterned by sector. The highest shares appear in hospitality, transport, and wholesale and retail, where customer-facing or service-intensive operations frequently extend into late hours. In many of these sectors, evening work exceeds 50–70 percent of workers in several countries, reflecting the structural dependence on evening activity in catering, logistics, retail trade, and passenger services.

Evening work is also relatively common in sectors such as arts, other services, and information, where cultural events, service delivery, or IT support may take place outside standard working hours. In contrast, evening work remains limited in public administration, education, finance, and professional activities, usually falling below 10–20 percent. These sectors largely adhere to traditional daytime schedules, supported by institutional norms and regulatory frameworks that restrict or limit late-hour work.

Cross-country variation is again substantial. Countries such as Italy, Greece, Portugal, and Slovenia show consistently higher evening-work shares across multiple sectors, while Germany, the Netherlands, Denmark, and Austria exhibit more moderate patterns outside hospitality and transport. These cross-country differences likely reflect variations in opening-hour regulations, sectoral bargaining traditions, and national norms regarding work–life organisation.

Overall, the heatmap underscores that evening work is a prominent feature of employment in many service-oriented and consumer-driven sectors across Europe. While it is more common than night work, its prevalence remains highly sector-specific and shaped by institutional and economic factors that govern the organisation of working time.

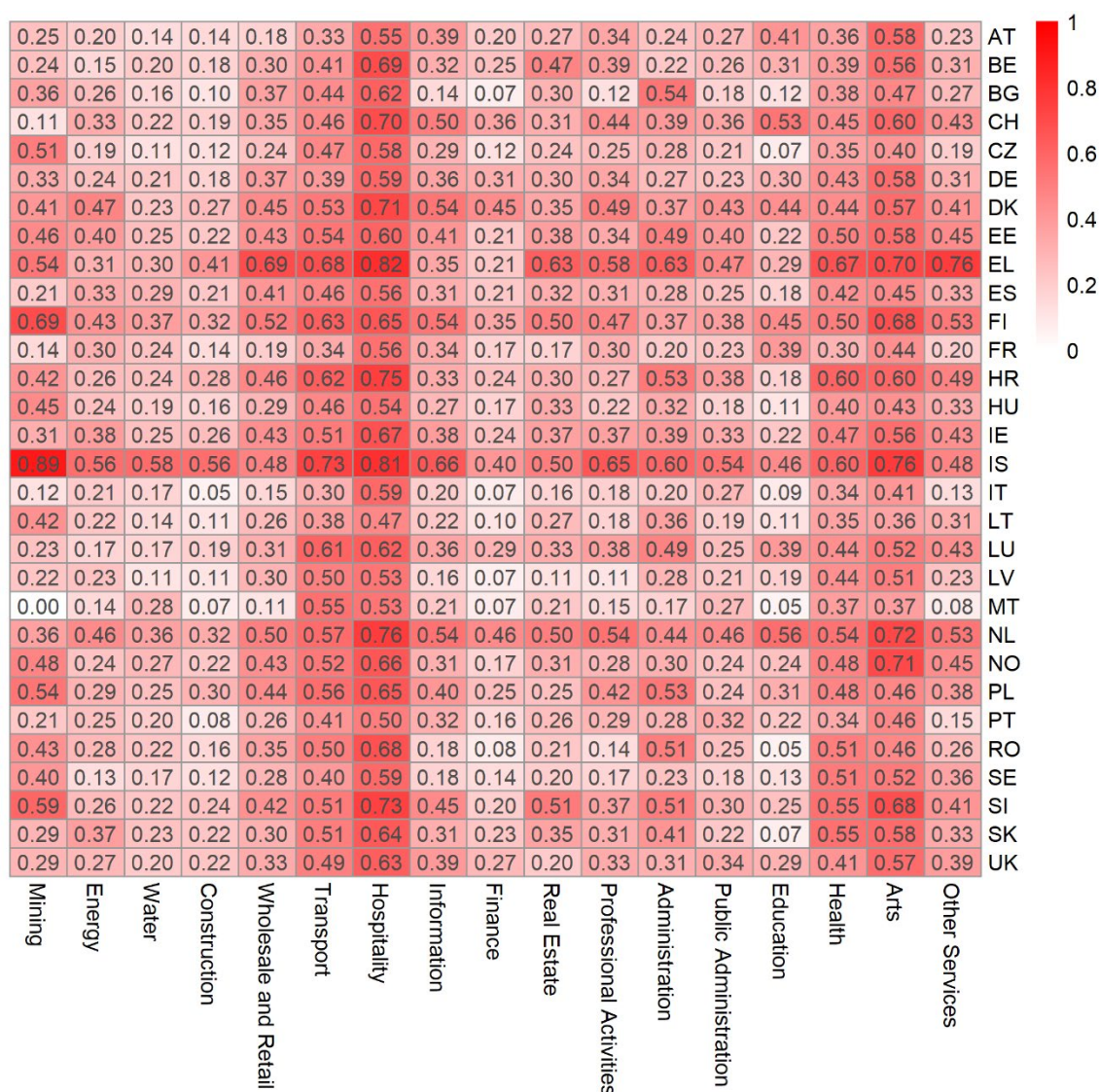


Figure 1: Share Working in Evening Hours. Source: EU-LFS.

4.2. Incidence of Night Hours

Figure 2 shows the share of workers performing paid night work across country–sector pairs. Compared with Saturday and Sunday work, night work is generally less prevalent, but it follows an equally distinct sectoral pattern. The highest shares are consistently observed in transport, hospitality, wholesale and retail, and construction, where operational demands extend into late hours or require continuous service provision. In several countries, these sectors report night-work shares above 30–40 percent, and in hospitality they frequently exceed 50 percent, reflecting the prominence of evening and overnight activity in tourism, food services, and logistics.

In contrast, night work is extremely limited in sectors such as public administration, education, finance, real estate, and professional services, where it typically falls below 5 percent. These sectors operate almost exclusively within standard daytime schedules, with organisational and regulatory frameworks that discourage or strictly limit night-time activity.

The heatmap also highlights substantial cross-country variation. Countries such as Italy, Greece, Slovenia, and Malta show high night-work incidence across multiple sectors, suggesting either broader opening hours or institutional norms allowing more extensive night-time work. In comparison, Austria, Germany, Denmark, and the Netherlands exhibit much lower rates outside the core sectors where night work is structurally required. These differences reflect national labour regulations on night-time work, collective bargaining arrangements, and sector-specific staffing practices.

Overall, the figure illustrates that night work is highly concentrated in a small number of service-oriented and continuous-production sectors, while remaining rare in administrative and knowledge-intensive occupations. Its distribution underscores the sectoral and institutional determinants of non-standard working time across Europe.

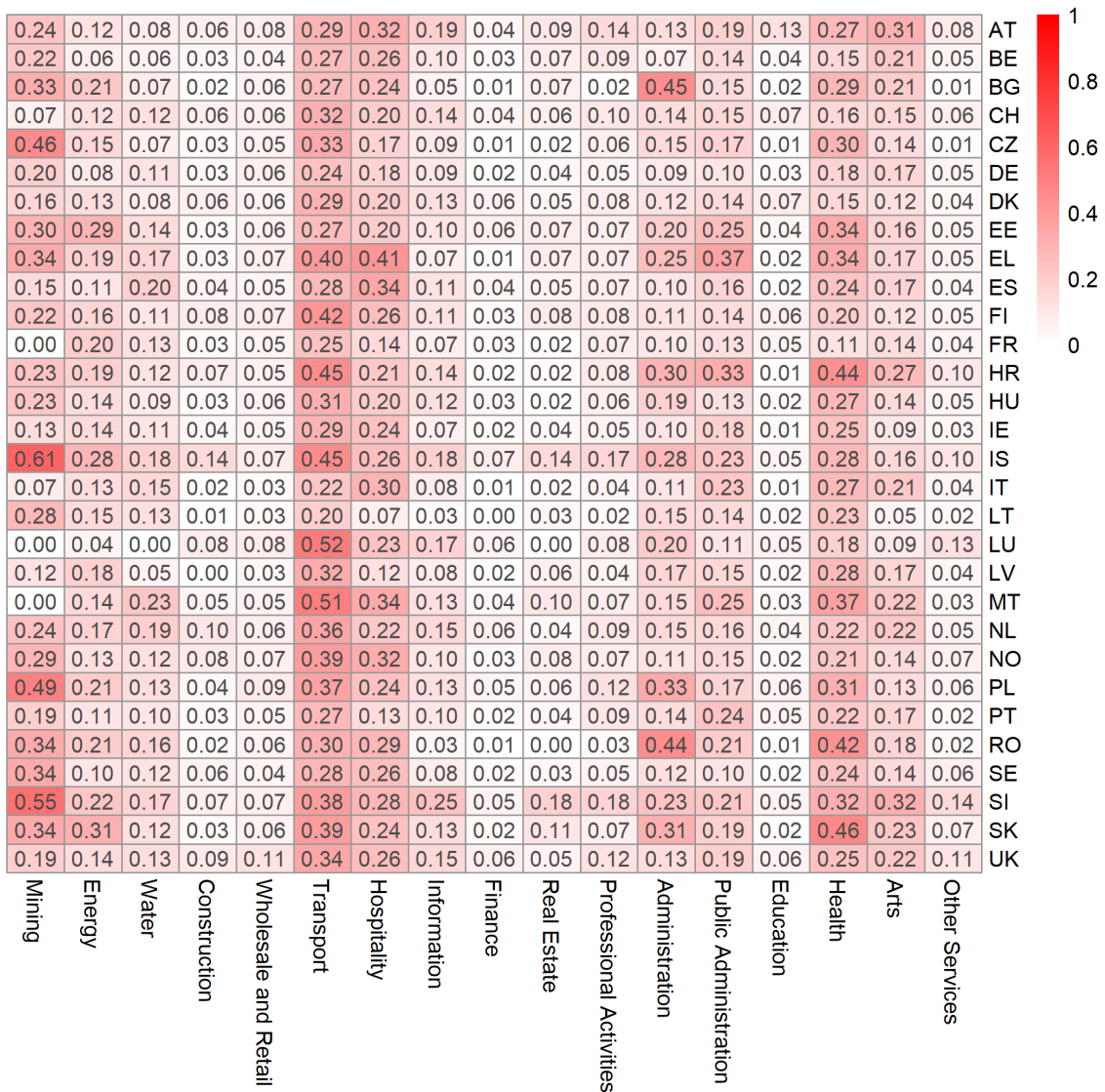


Figure 2: Share Working in Night Hours. Source: EU-LFS.

4.3. Incidence of Saturday Work

Figure 3 presents the share of workers performing paid work on Saturdays across country–sector pairs. The heatmap reveals substantial heterogeneity both across countries and across sectors, suggesting that Saturday work is shaped by a combination of sectoral production needs, national labour-market traditions, and institutional regulations. As expected, Saturday work is most prevalent in sectors with continuous or customer-facing operations—such as hospitality, transport, wholesale and retail, construction, arts and health—where shares frequently exceed 50 percent of workers in several Member States. In contrast, sectors like public administration, education, professional services, and finance consistently display very low Saturday-work incidence, often below 10 percent.

Cross-country variation is also pronounced. In some countries, including Italy, Greece, Slovenia, and Malta, Saturday work is widespread across multiple sectors, whereas in others—such as Germany, Denmark, and the Netherlands—it remains comparatively limited outside the sectors where weekend activity is structurally necessary. The heatmap highlights that Saturday work is concentrated in specific sectoral clusters rather than uniformly distributed within countries, underscoring the strong role of sector-specific working-time arrangements.

Overall, the figure illustrates that Saturday work is a common feature of employment in several service-oriented and production-intensive sectors, but remains rare in administrative and knowledge-intensive sectors. This pattern mirrors broader differences in operating hours, business models, and collective bargaining traditions across Europe.

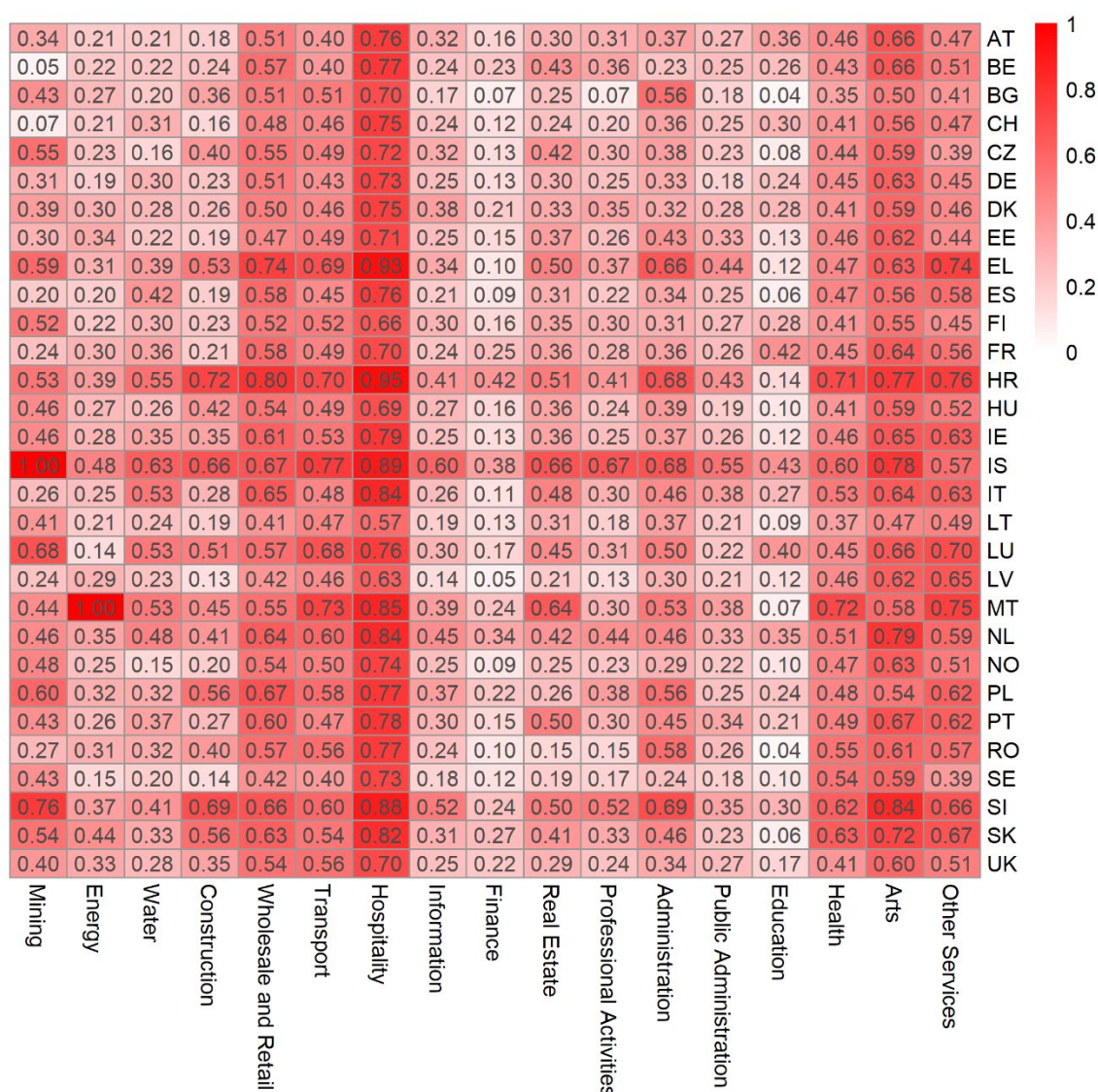


Figure 3: Share Working on Saturday. Source: EU-LFS.

4.4. Incidence of Sunday Work

Figure 4 provides an overview of the share of workers performing paid work on Sundays across country–sector pairs. As with Saturday work, the incidence of Sunday work varies markedly across both sectors and Member States, but the overall levels are noticeably lower. Sunday work is highly concentrated in sectors where weekend operations are structurally embedded into business models—most prominently hospitality, transport, wholesale and retail, and construction. In these sectors, several countries report Sunday-work shares exceeding 40–60 percent, and in hospitality the values reach even higher, reflecting the continuous nature of service provision in tourism, leisure, and catering.

By contrast, Sunday work remains extremely limited in sectors such as public administration, education, finance, professional services, and information, where it typically falls below 10 percent. These sectors generally follow standard working-time arrangements and are either closed or operate at very limited capacity on Sundays.

Substantial cross-country variation is also evident. Countries such as Italy, Greece, Portugal, and Slovenia report comparatively high Sunday-work shares across multiple sectors, whereas Germany, Denmark, the Netherlands, and Norway show substantially lower levels outside the sectors where weekend work is unavoidable. These differences reflect a combination of factors, including national legislation on Sunday trading, sectoral bargaining arrangements, and cultural norms regarding weekend rest.

Overall, the heatmap illustrates that Sunday work is a feature of employment primarily in customer-facing and service-intensive sectors, while remaining rare in administrative and knowledge-based activities. Compared with Saturday work, Sunday work is more tightly concentrated and more strongly shaped by regulatory and institutional boundaries.

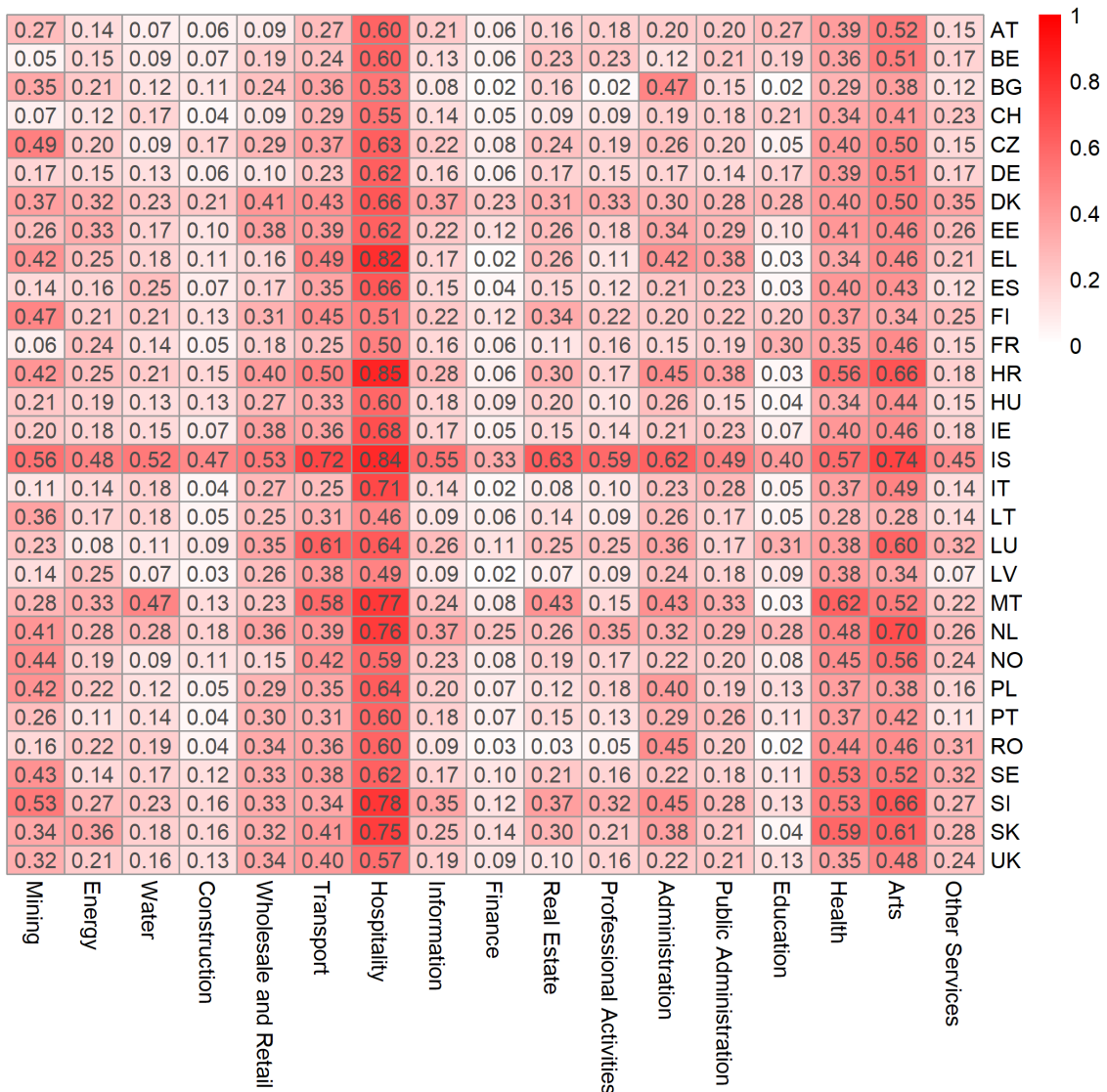


Figure 4: Share Working on Sunday. Source: EU-LFS.

5. Non-Standard Hours across the Earnings Distribution

Next, we analyse the position of workers performing non-standard hours within the earnings distribution. Using LFS earnings deciles, we examine whether workers who engage in non-standard work are disproportionately located at the bottom, middle, or top of the wage distribution. This step allows us to assess whether non-standard hours constitute a potential pathway out of low pay, or whether they are more commonly performed by workers already earning around or above the median.

5.1. Incidence of Overtime Across the Earnings Distribution

Figure 5 presents the share of employees performing overtime across deciles of the wage distribution. The pattern is clear and monotonic: overtime work becomes progressively more

common as wages increase. In the lowest wage decile, only around 3 percent of workers perform overtime, whereas in the top decile the share rises to nearly 20 percent. This gradient indicates that overtime work is disproportionately concentrated among higher-paid workers.

This finding is fully consistent with the earlier results from Elias and Besamusca (2025)¹, which showed that overtime does not help many workers reach wage adequacy thresholds because most overtime workers are already situated near or above the median wage. The SES-based analysis in WP2 confirmed that overtime earnings rarely lift low-paid workers above adequacy benchmarks. The LFS-based evidence in this figure reinforces that conclusion: low-wage workers are less likely to have access to overtime hours, and even when premiums exist, they primarily benefit workers who already have relatively higher earnings.

Overall, the figure highlights a structural feature of overtime work in the EU labour market: it is not evenly distributed across the wage distribution but is instead concentrated in better-paid jobs, sectors, and occupations. This helps explain why overtime compensation, despite the existence of premiums, plays only a marginal role in addressing low pay or improving wage adequacy.

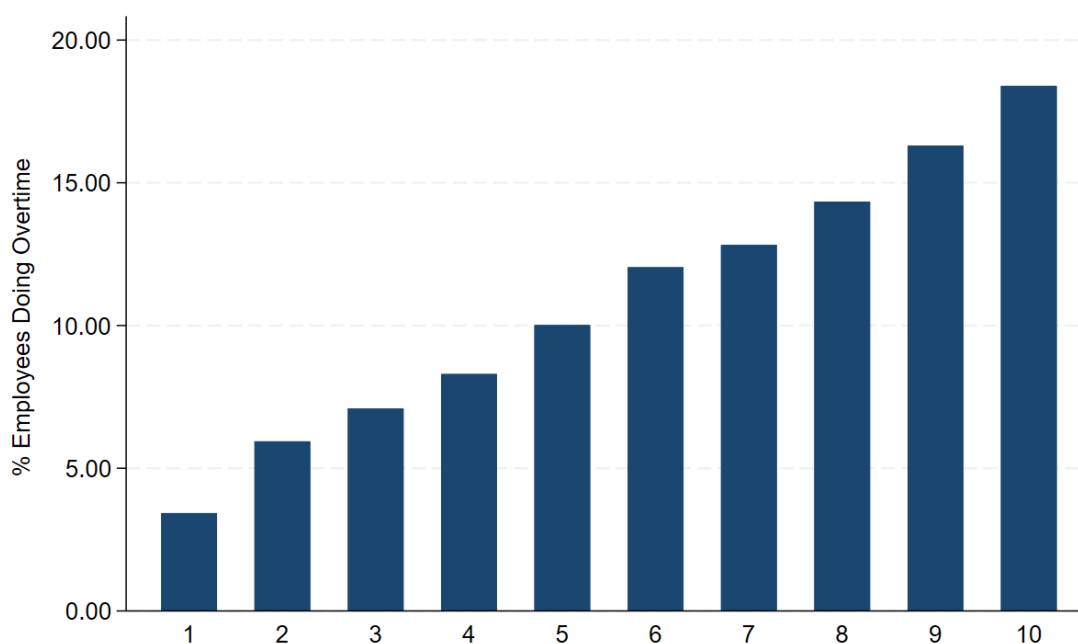


Figure 5: %Workers Doing Overtime by Decile of the Wage Distribution.

5.2. Incidence of Shift Work Across the Earnings Distribution

Figure 6 shows the share of employees engaged in shift work across the wage distribution. Unlike overtime—where participation increases steadily with higher wages—the pattern for shift work is non-linear and centered around the middle of the distribution. The incidence of shift work rises from around 11 percent in the lowest decile to a peak of roughly 20 percent in deciles 4 to 7, before gradually declining toward the top of the wage distribution.

¹ Elias and Besamusca corresponds BARTIME Report.

This pattern indicates that shift work is most common among middle-wage workers, rather than among the lowest-paid or the highest-paid. Workers in the middle deciles are more likely to be employed in sectors such as manufacturing, transport, health, retail, and hospitality, where shift systems are organisationally necessary and widely used. By contrast, very low-paid jobs often involve part-time or irregular schedules that may not formally qualify as shift work, while high-paid jobs are typically concentrated in managerial or professional occupations that rarely operate under shift arrangements.

The figure also aligns well with the broader findings in Deliverable 2 and WP2: non-standard hours—including shift work—tend to be performed by workers positioned around the median of the wage distribution. This helps explain why non-standard hours generally do not function as a pathway out of low pay. Even though shift work often carries additional compensation or allowances, these benefits primarily accrue to workers who are already earning moderate wages, not to those at the bottom of the distribution.

Overall, the figure highlights that shift work is a structural feature of mid-wage occupations in sectors characterised by continuous or extended-hour operations, further underscoring the uneven distribution of non-standard hours across the wage ladder.

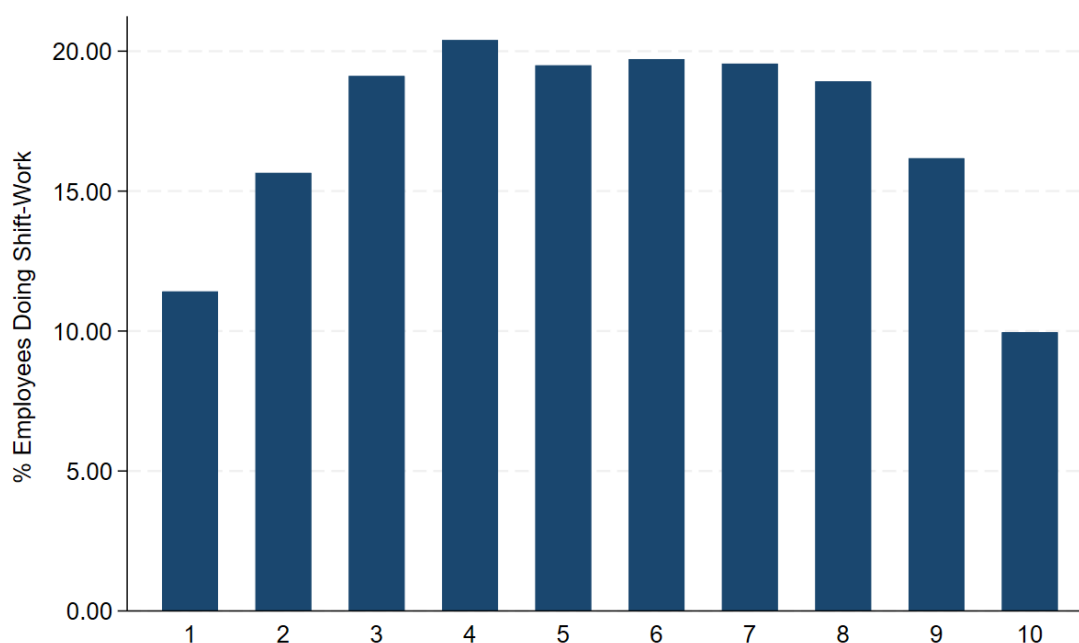


Figure 6: % Workers Doing Shift Work by Decile of the Wage Distribution. Source: EU-LFS.

5.3. Incidence of Evening Hours Across the Earnings Distribution

Figure 7 shows the share of employees performing evening work across the wage distribution. The pattern is clearly upward-sloping: the likelihood of working evenings increases steadily with wage levels. In the lowest wage decile, around 24 percent of workers perform evening work, whereas in

the top decile the share rises to nearly 40 percent. This makes evening work substantially more common among higher-paid employees.

This gradient contrasts with the pattern observed for shift work—where participation peaks in the middle of the wage distribution—but closely mirrors the trend seen for overtime work. Together, these results indicate that several forms of non-standard hours, including evening and overtime work, are more frequently performed by workers who are already at or above median wage levels, rather than by those at the bottom of the distribution.

This also aligns with the broader findings from Deliverable 2 and WP2: non-standard hours generally do not serve as a mechanism for lifting low-wage workers toward wage adequacy, because low-paid workers are less likely to access these additional hours in the first place. Instead, evening work appears to be concentrated in better-paid jobs within sectors such as hospitality, transport, information services, and certain professional services, where demand for work extends into later hours of the day.

Overall, the figure reinforces a consistent conclusion: non-standard hours disproportionately benefit mid- and high-wage workers, limiting their role as a tool for addressing low pay across EU labour markets.

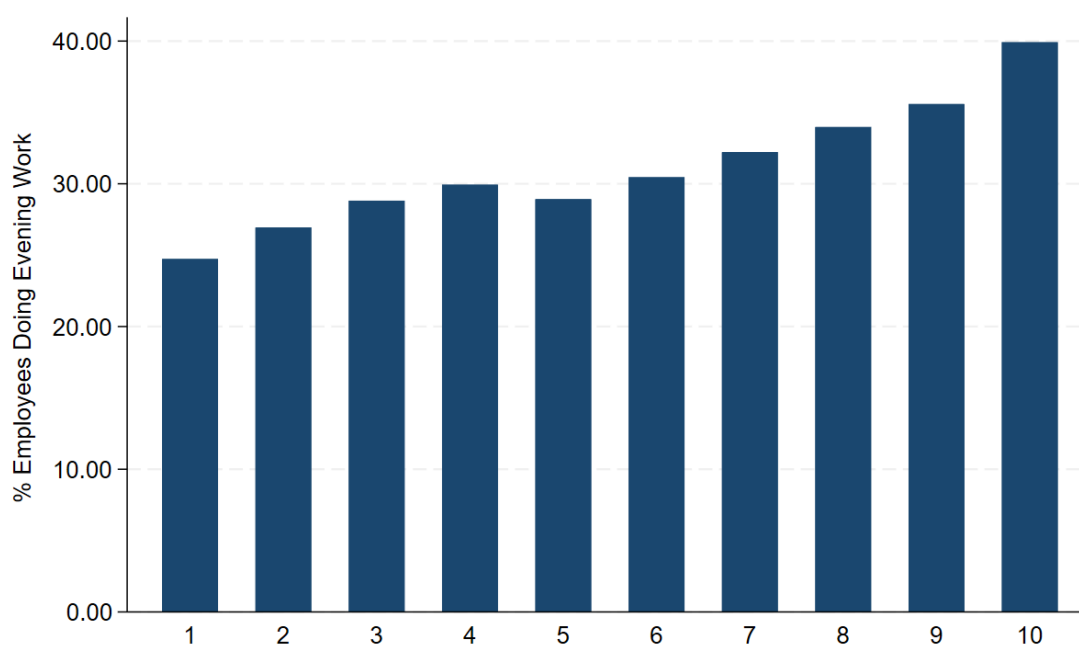


Figure 7: % Workers Doing Evening Hours by Decile of the Wage Distribution. Source: EU-LFS.

5.4. Incidence of Night Hours Across the Earnings Distribution

Figure 8 shows the share of employees performing night work across the wage distribution. The pattern is upward sloping: night work becomes more common as wages rise, although the gradient is less steep than for overtime or evening work. In the lowest wage decile, around 7

percent of workers perform night work, compared with roughly 15–17 percent in the upper deciles.

This pattern suggests that, as with other forms of non-standard working time, night work is not concentrated among the lowest-paid workers. Instead, participation increases steadily through the middle of the distribution and remains high among upper-middle and higher-paid employees. This reflects the occupational and sectoral composition of night work: many night jobs are located in transport, logistics, manufacturing, security, health care, hospitality, and emergency services—sectors that employ large numbers of mid-wage workers rather than those at the bottom of the wage ladder.

These results align with the broader evidence from Deliverable 2 and WP2, showing that workers performing non-standard hours—including overtime, evening work, and night work—tend to cluster around the median of the wage distribution. Consequently, even where night-work premiums exist, the structure of who performs night work limits its potential as a mechanism for raising low-wage workers toward adequacy thresholds.

Overall, the figure reinforces a consistent conclusion across all non-standard work categories: low-wage workers are less likely to perform hours that carry additional compensation, while mid- and higher-wage workers are more exposed to (and benefit from) these forms of work.

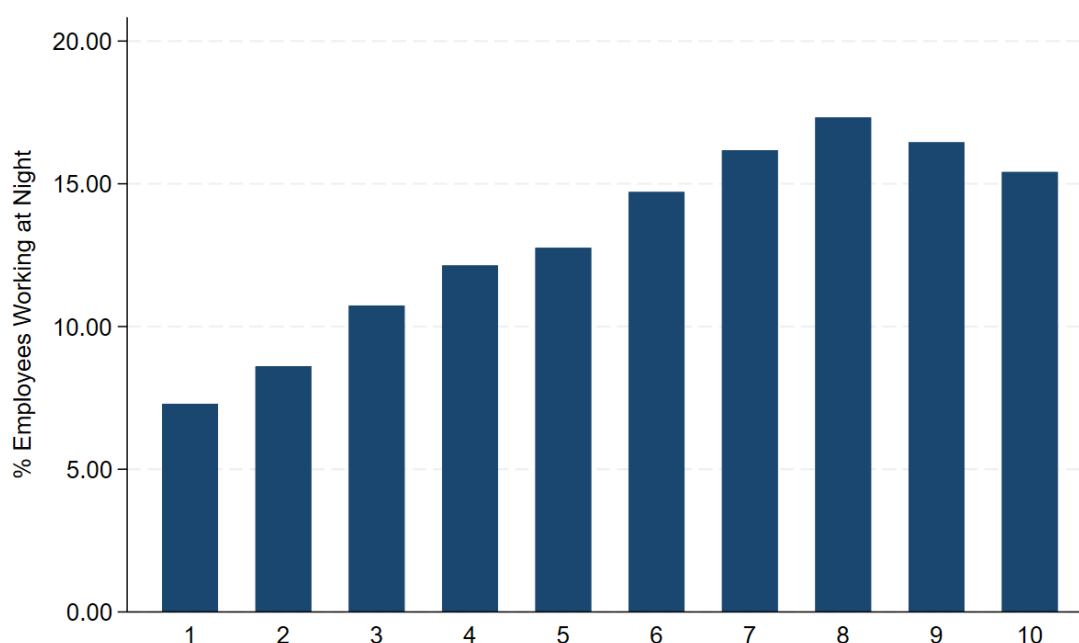


Figure 8: % Workers Doing Night Hours by Decile of the Wage Distribution. Source: EU-LFS.

5.5. Incidence of Saturday and Sunday Work Across the Earnings Distribution

Figures 9 and 10 show the prevalence of Saturday and Sunday work across the wage distribution. The two patterns are similar and reveal a consistent conclusion: weekend work is not concentrated among the lowest-paid workers, but instead is widespread across the distribution, with only modest differences between wage groups.

For Saturday work, participation peaks in the lower-middle part of the distribution, with around 40–43 percent of workers in deciles 2–4 reporting Saturday work. The incidence gradually declines toward the top, but even in the highest decile around 30 percent of employees work on Saturdays. This pattern reflects the types of jobs in sectors with Saturday operations—such as retail, hospitality, transport, and personal services—which employ workers across a broad range of wage levels rather than being confined to low-wage positions.

For Sunday work, the overall incidence is lower than for Saturday work, but the distributional pattern remains broadly similar. Sunday work peaks in deciles 3–4 at around 23–24 percent before tapering off slightly toward the top of the distribution. Nevertheless, Sunday work remains relatively common across all wage groups, with roughly 20 percent of workers in the highest decile still engaged in Sunday work.

Taken together, these figures highlight that weekend work is a structural feature of employment across the entire wage distribution, not a phenomenon specific to low-paid workers. This contrasts with some other forms of non-standard working time—such as overtime or evening work—which become more common at higher wage levels. The widespread nature of weekend work also reflects sectoral characteristics: many customer-facing and service-oriented industries operate on weekends and employ workers spanning from low to high wage deciles.

Overall, the evidence suggests that weekend work is broadly diffused across the EU labour market, cutting across occupational and wage groups, and is therefore not tightly linked to the wage adequacy challenges faced by workers in the lower part of the income distribution.

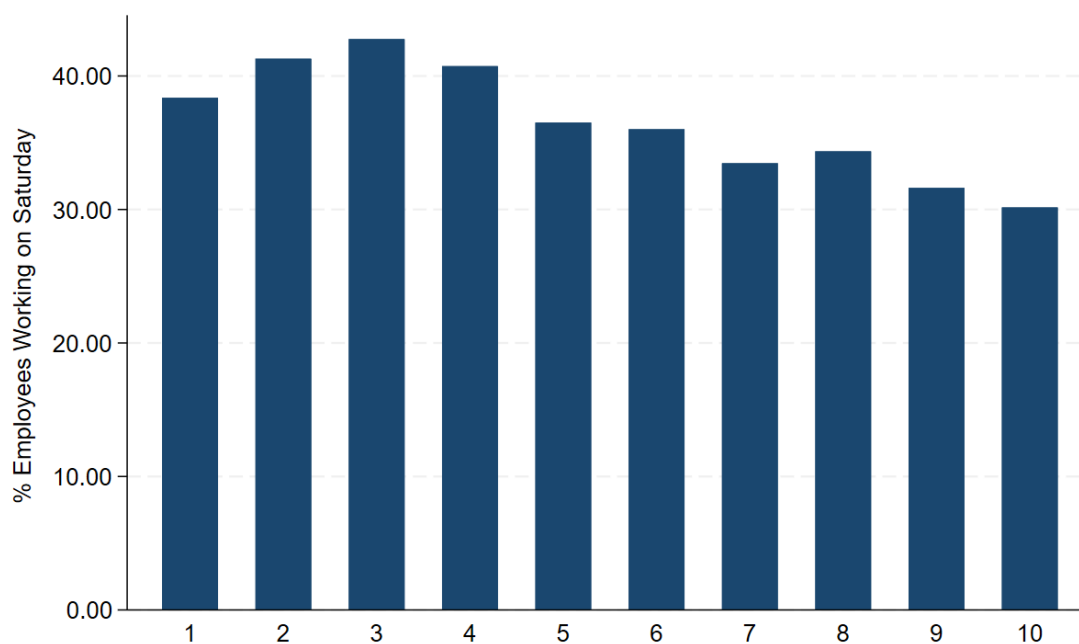


Figure 9: % Employees Working on Saturday by Decile of the Wage Distribution. Source: EU-LFS.

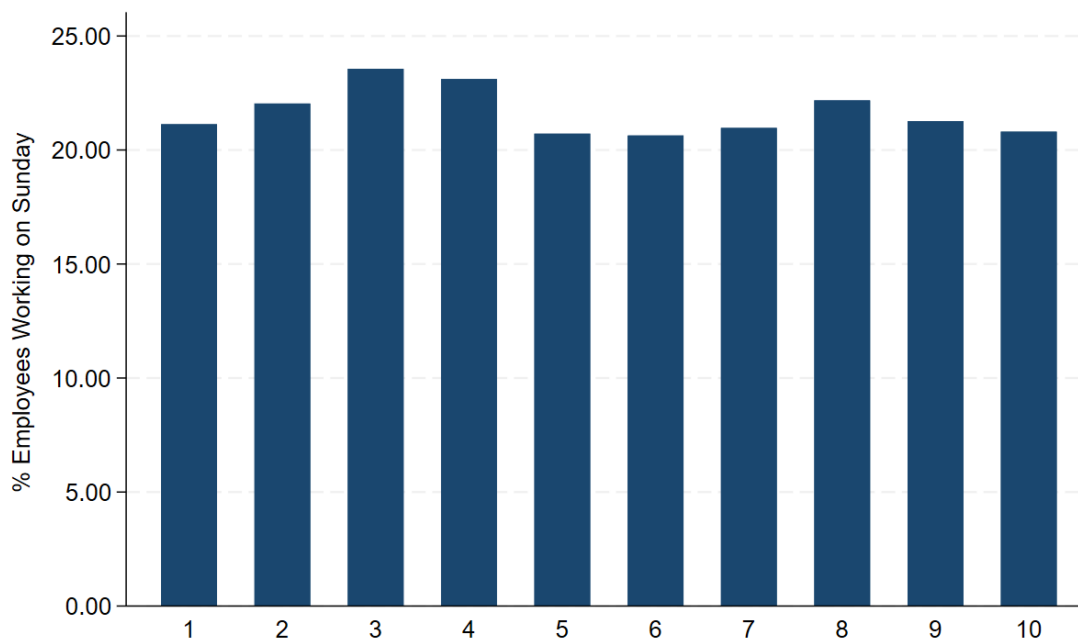


Figure 10: % Employees Working on Sunday by Decile of the Wage Distribution. Source: EU-LFS.

6. The Incidence of Unpaid Overtime

Figure 11 presents the ratio of unpaid overtime to total overtime across country–sector pairs. The heatmap reveals striking heterogeneity in the prevalence of unpaid overtime across Europe. In several country–sector combinations, unpaid overtime represents a substantial share—sometimes more than 70–90 percent—of all overtime performed. Conversely, in other contexts, unpaid overtime is virtually absent. This distribution underscores that unpaid overtime is not a marginal phenomenon but a structural feature of working time in many parts of the EU labour market.

Sectoral differences are particularly pronounced. High ratios of unpaid overtime are concentrated in information, professional activities, finance, real estate, education, and public administration—sectors characterised by professional, managerial, administrative, or knowledge-intensive roles where additional hours are often absorbed into workloads rather than compensated at overtime rates. These sectors frequently display ratios above 60–80 percent in several countries, suggesting that long or irregular hours are standard expectations rather than compensated exceptions.

In contrast, unpaid overtime is considerably less prevalent in sectors such as hospitality, mining, transport, construction, and wholesale and retail, where overtime hours tend to be more visible, more regulated, or more directly tied to operating hours. These sectors show lower ratios in many countries, indicating that overtime is more likely to be formally recognised and remunerated.

Cross-country variation is equally important. Some countries—such as Greece, Italy, Portugal, Slovenia, and Lithuania—show consistently high levels of unpaid overtime across many sectors, while others—such as Germany, Switzerland, and the Netherlands—exhibit comparatively lower

ratios. These patterns likely reflect differences in national labour regulations, collective bargaining coverage, workplace cultures, and enforcement mechanisms.

Overall, the heatmap highlights that unpaid overtime is a widespread but unevenly distributed component of working time in Europe. Its concentration in higher-skilled, white-collar sectors helps explain why analyses based solely on paid overtime (such as those in SES microdata) inevitably understate the full extent of additional work performed by employees. This asymmetry is crucial for understanding the limited role overtime pay plays in raising workers' earnings: in many sectors where extra hours are common, they simply go unpaid.

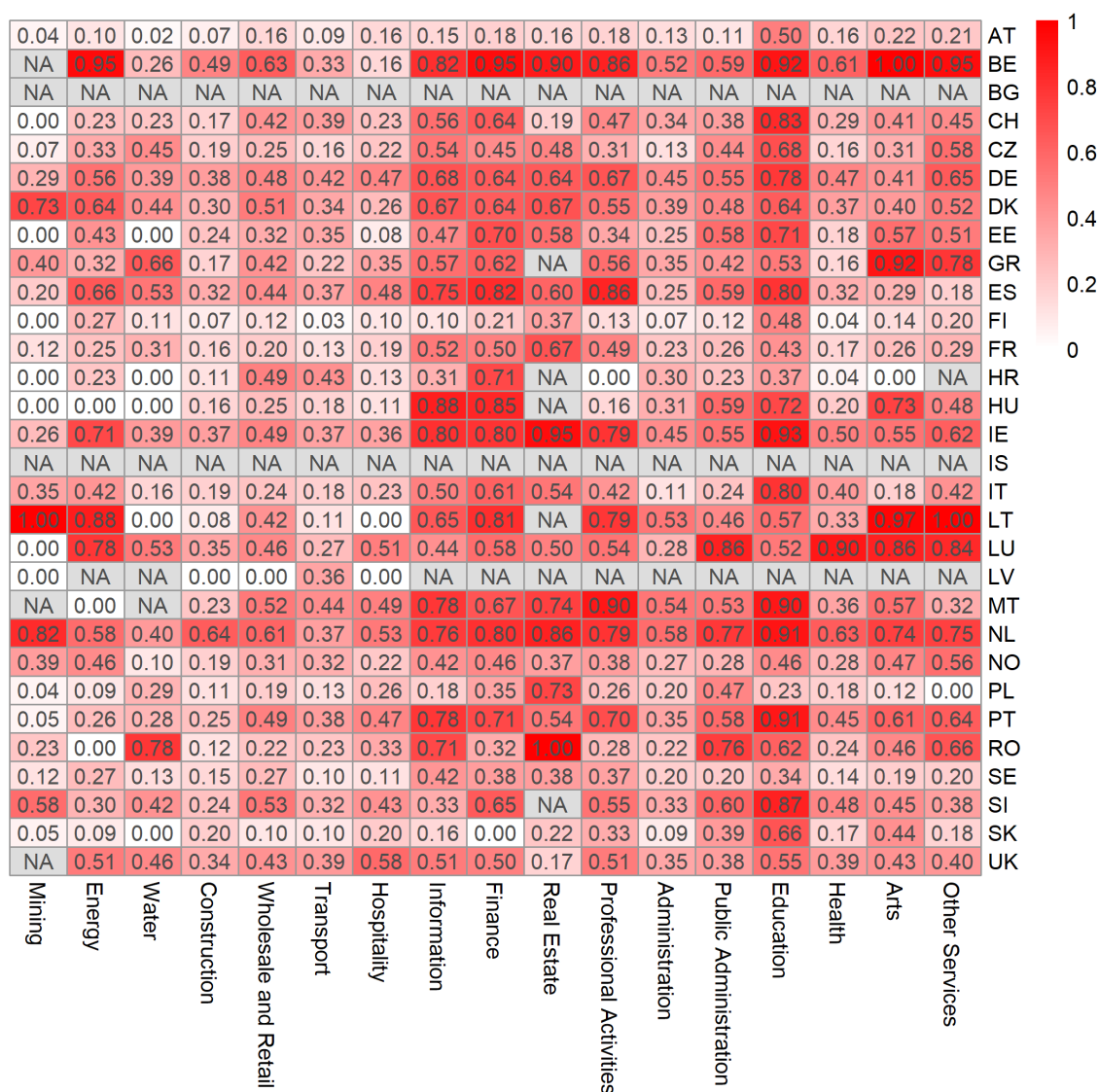


Figure 11: Unpaid Overtime Hours Relative to Total Overtime Hours. Source: EU-LFS.

6. Conclusions

This report mapped the prevalence of non-standard working time across EU Member States and sectors, and assessed how these working-time patterns relate to workers' position in the earnings distribution. Three overarching conclusions emerge.

Non-standard hours are a structural feature of European labour markets, but their incidence is highly uneven across sectors and countries. Evening, night and weekend work concentrate strongly in sectors with extended opening hours or continuous operations—especially hospitality, transport, wholesale/retail, and parts of construction and health—while public administration, education, finance and many professional services remain much more anchored to daytime schedules. Cross-country differences are large even within the same sectors, consistent with the idea that regulation (e.g., Sunday trading rules and night-work protections), collective bargaining traditions, and national norms around operating hours shape when work is performed.

Non-standard work is not systematically concentrated among the lowest-paid, which limits its role as a pathway out of low pay. Overtime shows a clear upward gradient by earnings decile: higher-paid workers are substantially more likely to do overtime than low-paid workers. Evening and night work also rise with earnings, though less steeply for night work. Shift work displays a distinct pattern, peaking in the middle of the wage distribution rather than at the bottom. Weekend work is the most broadly diffused form of non-standard time: Saturday and Sunday work remain common across the entire distribution, with only moderate differences between lower and higher deciles. Taken together, these patterns imply that access to the kinds of hours that may carry premiums (overtime, evening/night allowances) is unequal—often skewed toward mid- and higher-wage jobs—so non-standard hours cannot be relied upon as a general mechanism for lifting the lowest-paid into wage adequacy.

Unpaid overtime is widespread and concentrated in white-collar, knowledge-intensive sectors, meaning that “extra work” often does not translate into extra pay. The heatmap evidence shows that unpaid overtime can represent a very large share of total overtime in sectors such as information, professional activities, finance, real estate, education and public administration. In these contexts, longer hours frequently reflect workload norms and organisational culture rather than formally recognised, remunerated overtime. By contrast, paid overtime is more common where hours are more visible and regulated (e.g., hospitality, transport, construction, retail). This helps explain why analyses focused on paid overtime alone underestimate the true volume of additional work performed—and why overtime premiums, where they exist, have limited aggregate capacity to improve wage adequacy.

Overall, the findings point to a dual reality of non-standard working time in Europe. In many service and production sectors, non-standard schedules are driven by operational necessity and consumer demand for “always-on” services. In many professional and administrative domains, extended and irregular hours are more closely tied to cultures of availability and implicit expectations, with a substantial share of overtime going unpaid. For policy and collective

bargaining, this suggests two distinct challenges: (1) ensuring fair compensation and protections where non-standard hours are structurally required (notably nights and weekends in customer-facing and continuous-operation sectors), and (2) addressing the governance and enforcement gaps that allow unpaid overtime to become normalised in higher-skilled sectors—where the key issue is often not the presence of premiums, but the absence of paid recognition of extra hours at all.

References

- Ahonen, E. Q., Fujishiro, K., Cunningham, T., & Flynn, M. (2018). Work as an inclusive part of population health inequities research and prevention. *American journal of public health, 108*(3), 306-311.
- Anttila, T., & Oinas, T. (2018). 24/7 society—the new timing of work?. In *Family, work and well-being: emergence of new issues* (pp. 63-76). Cham: Springer International Publishing.
- Anxo, D., & Karlsson, M. (2019). *Overtime work: A review of literature and initial empirical analysis*. International Labour Office, Inclusive Labour Markets, Labour Relations and Working Conditions Branch.
- Arrowsmith, J., & Pulignano, V. (Eds.). (2013). *The transformation of employment relations in Europe*. London: Routledge.
- Bernstrøm, V. H., Alves, D. E., Ellingsen, D., & Ingelsrud, M. H. (2019). Healthy working time arrangements for healthcare personnel and patients: a systematic literature review. *BMC Health Services Research, 19*(1), 193.
- Berdahl, J. L., Cooper, M., Glick, P., Livingston, R. W., & Williams, J. C. (2018). Work as a masculinity contest. *Journal of social issues, 74*(3), 422-448.
- Bishow, J. L. (2009). A look at supplemental pay: Overtime pay, bonuses, and shift differentials. *Monthly Labor Review*.
- Blair-Loy, Mary. (2005) *Competing devotions : career and family among women executives*. Harvard University Press.
- Blair-Loy, M., & Williams, S. J. (2017). Long hours and the work devotion schema: The case of executive men in the United States. In *Work-family dynamics* (pp. 141-155). Routledge.
- Burgoon, B., & Raess, D. (2009). Globalization and working time: Working hours and flexibility in Germany. *Politics & Society, 37*(4), 554-575.
- Chung, H. (2020) "Gender, Flexibility Stigma and the Perceived Negative Consequences of Flexible Working in the UK," *Social Indicators Research, 151*(2), pp. 521-545. Available at: <https://doi.org/10.1007/S11205-018-2036-7/TABLES/5>.
- Conway, N., & Sturges, J. (2014). Investigating unpaid overtime working among the part-time workforce. *British Journal of Management, 25*(4), 755-771.
- Dablanc, L., Morganti, E., Arvidsson, N., Woxenius, J., Browne, M., & Saidi, N. (2017, October). The rise of on-demand 'Instant Deliveries' in European cities. In *Supply Chain Forum: An International Journal* (Vol. 18, No. 4, pp. 203-217). Taylor & Francis.
- Datta K, McIlwaine C, Evans Y, Herbert J, May J, Wills J. (2007). From Coping Strategies to Tactics: London's Low-Pay Economy and Migrant Labour. *Br J Ind Relations. 2007*;45(2):404-432. doi:10.1111/J.1467-8543.2007.00620.X

- Doellgast, V., & Berg, P. (2018). Negotiating flexibility: external contracting and working time control in German and Danish telecommunications firms. *Industrial and Labor Relations Review*, 71(1), 117–142. <https://doi.org/10.2307/4126655>
- Elias, F. & J. Besamusca. (2025). Overtime and Wage Adequacy in the European Union: Evidence from Survey Data and Collective Agreements. *BARTIME Report 4*. WageIndicator Foundation, Utrecht University, Central European Labour Studies Institute, University of Girona.
- Eurofound (2025), Structural change in EU labour markets: A generation of employment shifts, Publications Office of the European Union, Luxembourg.
- Eurofound and European Commission Joint Research Centre (2021), European Jobs Monitor 2021: Gender gaps and the employment structure, European Jobs Monitor series, Publications Office of the European Union, Luxembourg.
- Eurostat (2025a). *Employed persons by actual hours worked in main and second job during the reference week - quarterly data*. DOI: https://doi.org/10.2908/LFSI_HWA_Q
- Eurostat (2025b). *Employees working shifts - % of total employees*. DOI: https://doi.org/10.2908/LFSA_EWPSHI
- Eurostat (2025c). *Employed persons working at nights by professional status - % of total employment*. DOI: https://doi.org/10.2908/LFSA_EWPNIG
- Eurostat (2025d). *Employed persons working in the evenings by professional status - % of total employment*. DOI: https://doi.org/10.2908/LFSA_EWPEVE
- Eurostat (2025e). *Work on weekends by professional status and occupation*. DOI: https://doi.org/10.2908/LFSA_QOE_3B3
- Graeber, D. (2013). On the phenomenon of bullshit jobs: A work rant. *Strike Magazine*, 3(1), 2.
- Haipeter, T., & Lehdorff, S. (2005). Decentralised bargaining of working time in the German automotive industry. *Industrial Relations Journal*, 36(2), 140–156. <https://doi.org/10.1111/J.1468-2338.2005.00350.X>
- Hart, R. A. (2004). *The economics of overtime working*. Cambridge University Press.
- Hart, R. A., & Ma, Y. (2010). Wage–hours contracts, overtime working and premium pay. *Labour Economics*, 17(1), 170-179.
- Hu, N. C., Chen, J. D., & Cheng, T. J. (2016). The associations between long working hours, physical inactivity, and burnout. *Journal of Occupational and Environmental Medicine*, 58(5), 514-518.
- Ilsøe, A. (2012). Safety nets or straitjackets? Regulating working time in the Danish, German and American metal industries. *European Journal of Industrial Relations*, 18(1), 37–51. <https://doi.org/10.1177/0959680111430563>
- Jirjahn, U. (2008). On the determinants of shift work and overtime work: Evidence from German establishment data. *British Journal of Industrial Relations*, 46(1), 133-168.
- Landsbergis, Paul A., Bongkyoo Choi, Marnie Dobson, Grace Sembajwe, Craig Slatin, Linda Delp, C. Eduardo Siqueira, Peter Schnall, and Sherry Baron. (2018). The key role of work in population health inequities. *American Journal of Public Health*, Vol. 108(3), pp. 296-297.
- Leschke, J. (2015). Non-standard employment of women in service sector occupations: A comparison of European countries. In *Non-standard employment in post-industrial labour markets* (pp. 324-352). Edward Elgar Publishing.
- Lewis P. (2014) Paying the penalty? The high price of penalty rates in Australian restaurants | Agenda: A Journal of Policy Analysis and Reform. *Agenda: A Journal of Policy Analysis and Reform*. 21(1), 5-26.

- Lewis, J., Campbell, M., & Huerta, C. (2008). Patterns of paid and unpaid work in Western Europe: gender, commodification, preferences and the implications for policy. *Journal of European social policy*, 18(1), 21-37.
- Lirio, P., Lee, M. D., Williams, M. L., Haugen, L. K., & Kossek, E. E. (2008). The inclusion challenge with reduced-load professionals: The role of the manager. *Human Resource Management*, 47(3), 443-461. <https://doi.org/10.1002/HRM.20226>
- OECD (2017), How's Life? 2017: Measuring Well-being, OECD Publishing, Paris. http://dx.doi.org/10.1787/how_life-2017-en
- OECD & AIAS (2025). OECD/AIAS database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS). Version 2.0. Paris: OECD.
- Paolucci, V., & Galetto, M. (2020). The collective bargaining of flexicurity: A case for sector-level analysis? The Italian chemical and metalworking sectors compared. *Human Resource Management Journal*, 30(2), 165-179. <https://doi.org/10.1111/1748-8583.12255>
- Peetz D, Bruynius S, Murray G. (2019) Choice and the impact of changes to Sunday premiums in the Australian retail and hospitality industries. *J Ind Relations*. 61(5), 657-681.
- Piso, A. (2022). Controlling the clock: Working hours in the UK hotel sector. *Research in Hospitality Management*, 12(1), 1-11-1-11. <https://doi.org/10.1080/22243534.2021.2007589>
- Presser, H. B., Gornick, J. C., & Parashar, S. (2008). Gender and nonstandard work hours in 12 European countries. *Monthly Lab. Rev.*, 131, 83.
- Rabenu, E., & Aharoni-Goldenberg, S. (2017). Understanding the relationship between overtime and burnout. *International Studies of Management & Organization*, 47(4), 324-335.
- Richbell, S., Brookes, M., Brewster, C., & Wood, G. (2011). Non-standard working time: an international and comparative analysis. *The International Journal of Human Resource Management*, 22(04), 945-962.
- Rubery, J., Ward, K., Grimshaw, D., & Beynon, H. (2005). Working Time, Industrial Relations and the Employment Relationship. *Time & Society*, 14(1), 89-111. <https://doi.org/10.1177/0961463X05050300>
- Ruderman, M. N., Clerkin, C., & Deal, J. J. (2017). The long-hours culture: Implications for health and wellbeing. In *The routledge companion to wellbeing at work* (pp. 207-220). Routledge.
- Tajji, R., & Mills, M. C. (2020). Non-standard schedules, work-family conflict, and the moderating role of national labour context: evidence from 32 European countries. *European Sociological Review*, 36(2), 179-197.
- Tanquerel, S. and Grau-Grau, M. (2020) "Unmasking work-family balance barriers and strategies among working fathers in the workplace," *Organization*, 27(5), pp. 680-700. Available at: <https://doi.org/10.1177/1350508419838692>.
- De Tavernier, W., Boulhol, H., Cazes, S., & Garnero, A. (2023). Work environment and collective bargaining in long-term care.
- Weaver, S. H., De Cordova, P. B., Vitale, T. R., Hargwood, P., & Salmond, S. (2023). Experiences and perceptions of nurses working night shift: a qualitative systematic review. *JBI evidence synthesis*, 21(1), 33-97.
- Weston, G. et al. (2024) "Work hours, weekend working, nonstandard work schedules and sleep quantity and quality: findings from the UK household longitudinal study," *BMC Public Health*, 24(1), pp. 1-16. Available at: <https://doi.org/10.1186/S12889-024-17762-0/TABLES/3>.

- Wharton, A.S. and Blair-Loy, M. (2016) "The 'Overtime Culture' in a Global Corporation," *Work and Occupations*, 29(1). Available at: <https://doi.org/10.1177/0730888402029001003>.
- Williams, J.C., Blair-Loy, M. and Berdahl, J.L. (2013) "Cultural Schemas, Social Class, and the Flexibility Stigma," *Journal of Social Issues*, 69(2), pp. 209–234. Available at: <https://doi.org/10.1111/JOSI.12012>.