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**Fragmented labour  
markets in affluent  
societies: examples  
from Germany and the  
Netherlands**



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## **Fragmented labour markets in affluent societies: examples from Germany and the Netherlands**

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## Abstract

The employment and social impacts of the Covid-19 pandemic have been more severe on some groups of workers than others. In particular, low-wage workers and workers in forms of employment that differ from full-time wage and salary work with a permanent contract seem to have been especially exposed to job and income losses. The concept of 'fragmented labour markets' highlights the large and growing diversity in employment relationships. We define fragmented labour markets as labour markets characterised by an accumulation of insecurities. Fragmentation is evident where workers combine non-standard employment with low wages or where they combine several forms of non-standard employment – situations that are dominant in particular occupational groups. Applying this concept in two affluent countries – Germany and the Netherlands – highlights vulnerability in some occupations, particularly among women, but at times also among men. For instance, almost 70% of female personal care employees in Germany are employed part time and 18% of these combine part-time employment with a fixed-term employment contract. In the Netherlands, 43% of women in the occupational group of cleaners and helpers and service employees are marginally employed and 27% of these combine marginal part-time employment with fixed-term employment. Both occupations, and particularly cleaning, are at the same time characterised by low wages. These groups would have been 'invisible' if only data on the average economy had been used. This demonstrates the importance of relating the impact of the crisis on jobs, income and social security to the degree of job stability and decent earnings workers had prior to the crisis. The concept of 'fragmented labour markets' is therefore very suitable for detecting vulnerabilities that have been built into labour markets over the past decades.

## Introduction

This Research paper places the employment and social impacts of the Covid-19 pandemic in the context of the ongoing trend of labour market fragmentation in the EU and beyond. It highlights the importance of relating the impact of the crisis on jobs, income and social security to the degree of job stability and decent earnings workers had prior to the crisis. We develop the concept of fragmented labour markets in order to gain insight into the current labour market and earnings of workers, focusing on specific (occupational) subgroups. While the literature on labour market dualisation and casualisation of work has been addressing the insecurity of workers, we argue that the use of general statistics on standard versus non-standard forms of employment underestimates the dire situation of some groups on the labour market. We illustrate this point by zooming in on the work situation and incomes of particular occupations in Germany and the Netherlands, thus providing a more accurate prediction of the vulnerability of workers.

The paper first introduces the concept of fragmented labour markets, which can be defined as *labour markets characterised by an accumulation of insecurities*. In our definition, fragmentation is evident where workers combine non-standard employment with low wages or where they combine several forms of non-standard employment – situations that are dominant in particular occupational groups. Next, the paper illustrates the added value of the concept of fragmentation by exploring the labour markets of Germany and the Netherlands, two affluent countries that display high fragmentation, particularly for women. We focus on a range of professions whose working conditions have been exposed by the Covid-19 pandemic (Blau *et al.* 2020). Using Eurostat data, the paper demonstrates that within these professions non-standard employment and low earnings are strongly interlinked and, moreover, that they are considerably more pronounced among women and in female-dominated professions with lower educational requirements. Whereas the concept focuses on employment, fragmentation not only impacts the degree of security of those in a job. Because of the short-term and unstable nature of many of these jobs and the oftentimes low wages, there can be spill-over effects to (in)security outside employment (Blau *et al.* 2020; Warren and Lyonette 2018; Yildirim and Eslen-Ziya 2021). Thus, while fragmented jobs would require suitable forms of social security (cf Schmid 2016), effective access is often more constrained compared to standard jobs (e.g. Matsaganis *et al.* 2016; Leschke and Finn 2019; Spasova *et al.* 2021). Acknowledging the contribution of studies which have analysed low wage work and its institutional conditions (e.g. Bosch 2009), non-standard employment in specific occupations (Eichhorst and Marx 2015) or so-called 'bad jobs' (Kalleberg 2011), this paper concludes that the concept of labour market fragmentation helps to uncover vulnerable labour market groups that could otherwise remain hidden. It thereby creates a more profound understanding of what growing labour market flexibility entails in terms of cumulative insecurities. The conclusions raise the question about how much labour market fragmentation affluent societies can justify.

## 1. Fragmented labour markets

The employment and social impacts of the Covid-19 pandemic have hit some groups of workers harder than others. In particular, low-wage workers and workers in forms of employment that differ from full-time wage and salary work with a permanent contract seem to have been especially exposed to job and income losses (OECD and ILO 2020). The concept of fragmented labour markets highlights the large and growing diversity in employment relationships. It demonstrates the importance of relating the impact of the crisis on jobs, income and social security to the degree of job stability and decent earnings workers had prior to the crisis. It is therefore suitable for detecting vulnerabilities that have been built into labour markets over the past decades.

By taking into account the complexity of contemporary labour markets, the concept of fragmented labour markets goes beyond traditional views on segmented (Leontaridi 1998), dual (Emmenegger *et al.* 2012) or primary versus secondary labour markets (Doeringer and Piore 1971). There are a number of arguments as to why such binary divisions with regard to labour market status or outcomes are obsolete, including the substantial variety within both groups - standard and non-standard jobs - (e.g. Findlay and Thompson 2017; Kalleberg 2000; Mattijssen and Pavlopoulos 2019; Vosko *et al.* 2009) or accounts of multi-dimensional job quality (Muñoz de Bustillo *et al.* 2011; Leschke and Watt 2014).

This paper focuses on the group of workers commonly termed 'outsiders', or the population in non-standard (also termed atypical) employment. Over the past decades, further fragmentation of employment status has occurred (Eurofound 2020). Some speak of an 'explosion' of diverse types of non-standard employment relationships, making these types of jobs an often occurring or even 'normal' phenomenon at least for some labour market groups, such as women (Clegg 2020; Rubery *et al.* 2018). Consequently, within the group of 'outsiders', an ever greater variety of forms of employment is materialising, making the groups themselves far from homogeneous. This poses numerous challenges in terms of labour market regulation, social security and industrial relations (e.g. Emmenegger *et al.* 2012; Eurofound 2020; Keune 2015; Rodgers 2007). More and more workers hold jobs that are low paid, temporary and insecure, while also contributing little to skills development and entailing only limited access to social protection (Conen and Schulze Buschoff 2019; Piasna *et al.* 2020; Schoukens and Barrio Fernandez 2017). Flexible jobs are multifaceted, and attributes of non-standard employment often overlap (e.g. Leschke 2015). All of this implies that it is hard to define non-standard employment in a uniform way (Kalleberg 2000).

The inadequate binary division of the labour market into groups of 'insiders' and 'outsiders' has spurred a call for a new multidimensional approach to understanding inequalities in work and

employment – or a ‘new labour market segmentation’ approach to the investigation of work and employment inequalities (Grimshaw *et al.* 2017). Fudge (2006) proposes reconceptualising the scope of labour protection and making it more suitable to the current situation, with a plurality of employment forms and employment contracts that each have their own sets of labour rights and social security coverage. Conen and Stein (2021) refer to labour market flexibility, the blurring of boundaries between dependent and independent work, and fragmentation, when exploring holders of multiple jobs, using the term ‘hybridisation of work’. Smith and McBride (2020) describe workers with more than one and up to seven different jobs, which they take on because of low pay, limited working hours and employment instability, suggesting a dual fragmentation of working time and employment.

Based on the trends and observations highlighted above, this paper develops the concept of fragmented labour markets as a way to both define and explore the most vulnerable types of non-standard employment. We build on the work of authors who point to key elements of such a definition, including the various labour market groups with varying sets of rights and labour conditions (Calleman and Herzfeld Olsson 2016: 161), and refer to a range of employment statuses such as part-time work, fixed-term contracts, temporary agency work, self-employment, marginal employment, platform work and other ‘non-standard’ forms of employment (Eurofound 2020). Additionally, we look at the earnings that workers (can) generate from their jobs, and whether they combine several employment statuses (e.g. being part-time as well as fixed-term employed). Moreover, we zoom in on certain occupational groups, such as health professionals and personal care employees (see also Eichhorst and Marx 2015), which were prominent during the COVID-19 pandemic. This is important in order to prevent certain vulnerable groups remaining ‘hidden’ in overall labour market averages (see the example of the occupational group of cleaners below).

Therefore, we define fragmented labour markets as labour markets characterised by an accumulation of insecurities. According to our definition, fragmentation is thus evident where workers combine non-standard employment with low wages or where they combine several forms of non-standard employment – situations that are dominant in particular occupational groups.

## 2. Using the concept of fragmented labour markets for the Covid-19 crisis

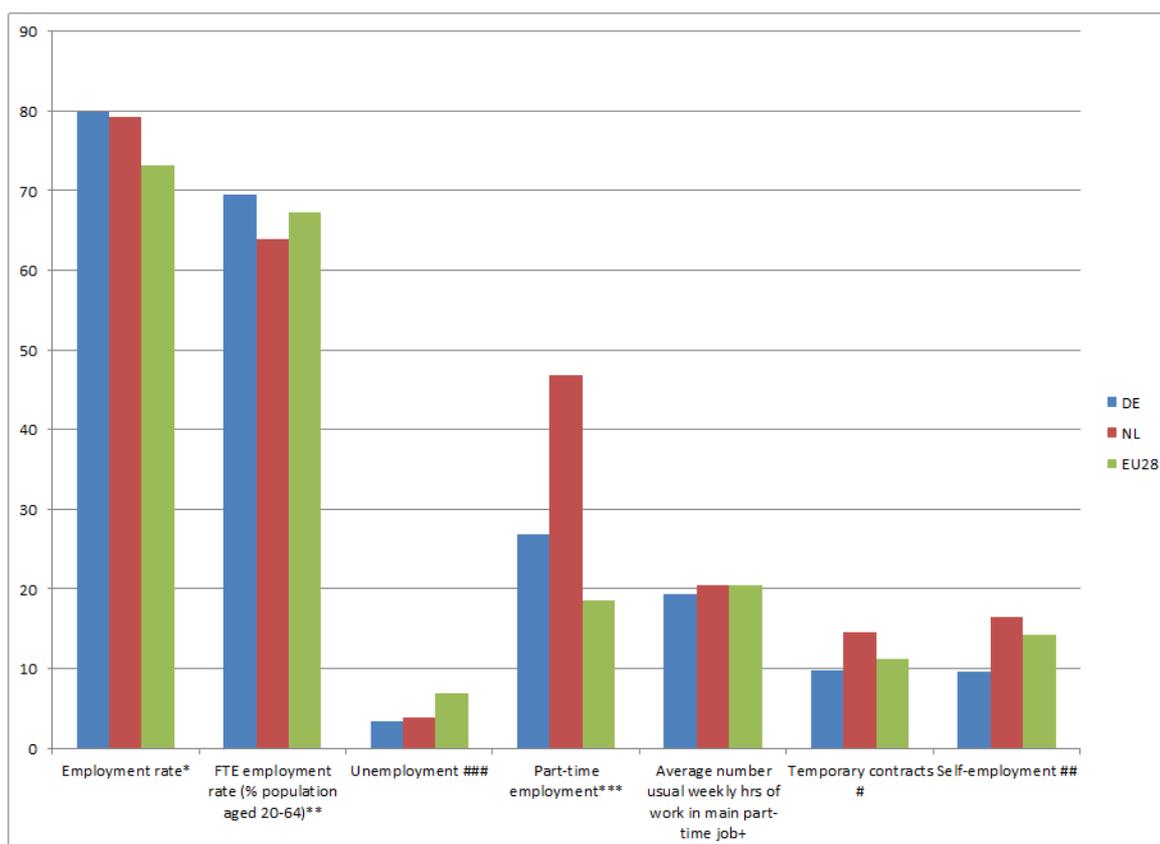
The paper argues that using the concept of labour market fragmentation may highlight which labour market groups are generally more insecure and vulnerable to job and/or income loss and fluctuations and would therefore need additional support particularly when crises occur. An economic recession may have different effects for different groups of non-standard workers. For instance, the 2008/2009 recession seemed to have little effect on women in higher-level part-time jobs, while both part-timers *and* full-timers in lower-level jobs suffered the worst effects of the recession (Warren and Lyonette 2018). This may have contributed to deepening occupational class inequalities among working women (ibid.). Young workers with flexible contracts were the first to lose their jobs, and income protection in the event of unemployment was often deficient for this group (Leschke and Finn 2019). The Covid-19 pandemic shows similar variations across groups of flexible workers. The ILO (2020) reports that the pandemic has introduced a new category of frontline workers, namely food-retail and grocery-store workers, as well as cleaning-service workers. On the one hand, these workers have become essential to the economy's survival and to guaranteeing food security and safety for the population. On the other hand, such workers (fixed-term as well as permanently employed) are often low skilled and have low wages with inadequate social security benefits. Other examples from the recent pandemic reveal that working arrangements that deviate from the standard, in particular, have offered less employment and social security. Fixed-term workers have been among the first to lose their jobs and many workers have had to accept shorter hours and/or wage cuts in various industries, such as airlines, retail and accommodation, or the textile and garment sectors (OECD and ILO 2020). These, moreover, are highly feminised sectors (ibid.).

The coronavirus pandemic and the unprecedented government support packages have also revealed the social security gaps affecting (very) flexible workers, including in affluent countries (Spasova *et al.* 2021 for EU countries; Bekker and Leschke 2020 for Germany and the Netherlands; Larsen and Ilsøe 2021 for the Nordic countries). In the Netherlands, this has included students who were made redundant, temporary agency workers and on-call workers who are eligible neither for unemployment benefits nor for social assistance (e.g. due to short work histories or their household having excessive financial assets), leading to the implementation of an additional temporary scheme, albeit for a very short period and with a low income replacement level (the Temporary Arrangement for flexible workers). Likewise, German mini-jobbers who are not protected by regular unemployment or other benefits were among the groups that have experienced heavy job losses during the pandemic, particularly in hotels and restaurants (Minijobzentrale 2020). This has not triggered specific additional measures, but the temporary relaxation of means-testing in the German basic benefit scheme (*Grundsicherung für Arbeitsuchende (Arbeitslosengeld II)*) may have helped to temporarily cushion, to some extent, their income fluctuations (Bekker and Leschke 2020).

In the next section, we provide some illustrations of our conceptualisation based on EU Labour Force Survey (LFS) data with reference to Germany and the Netherlands – two affluent countries that are characterised by fragmented employment at least for women and specific occupational groups (Eichhorst *et al.* 2015; Leschke 2015). We conceptualise fragmented labour markets along occupational lines, capturing low, medium and high education levels and zooming in on some of the professions in focus during the COVID-19 pandemic. We argue that fragmentation is often hidden when labour market averages are used. This also means that the impact of a sudden and vast crisis, such as COVID-19, may come as a surprise to policymakers, who may build their labour market policies on the premise of low unemployment and high employment rates.

### **3. Illustration of labour market fragmentation in Germany and the Netherlands**

Germany and the Netherlands are both affluent countries, and (prior to the coronavirus crisis) both had very low unemployment rates (Figure 1). However, even in economically prosperous times, both countries have faced challenges when it comes to non-standard employment and low earnings. Both countries, but in particular the Netherlands, show shares of non-standard employment indicators, such as part-time work, marginal employment and temporary employment or temporary agency work, which are above-average for the EU (authors' analysis based on EU-LFS, see next section). Germany, in turn, has seen a large expansion of the low-wage sector over the last decades (Bosch and Weinkopf 2017). Both Germany and the Netherlands perform poorly in comparison to other European countries with regard to women who combine part-time and low-wage work in lower-skilled service occupations, such as personal and protective services and elementary sales and cleaning (Leschke 2015 based on EU-SILC).

**Figure 1: Main labour market indicators: Germany (DE), Netherlands (NL) and EU28, 2018**

**Source:** Eurostat, aggregate EU-LFS data.

\* Note: Eurostat % of total populations (resident population concept – LFS) aged 20–64.

\*\* Source: European Commission 2019.

\*\*\* Note: Eurostat % of total employment aged 20–64.

# Note: Eurostat % of total employment aged 20–64.

## Note: Eurostat % of total employment.

### Note: Eurostat total: % of active population.

In the following, we use the EU-LFS data for 2018 to provide an initial illustration of the fragmentation concept; the data is supplemented by 2018 Structure of Earnings Survey (SES) data on earnings. The EU-LFS, in contrast to other EU data sources <sup>(1)</sup>, allows us to look at occupational groups in detail, contains relatively high case numbers (an advantage when presenting combinations of different fragmentation indicators by occupational group and gender) and comprehensive information on non-standard employment forms. A downside of EU-LFS data is that earnings information is only available in the form of monthly take-home pay

1. European Union Statistics on Income and Living Conditions (EU-SILC) no longer provides occupational information (ISCO) codes for Germany beyond the ISCO major groups (ISCO 1 level) and has comparatively low case numbers. The Structure of Earnings Survey (SES), available on a four-yearly basis, contains limited information on non-standard employment and has no information on the self-employed.

collected in income deciles and exclusively for dependent employees (European Commission 2020). A limitation of the SES is that it does not cover companies with less than ten employees.

In order to identify the occupational groups, we use the derived classification of 'European Socio-Economic groups' (ESeG) <sup>(2)</sup> as it allows us to capture, by detailed group, the self-employed and small-scale entrepreneurs (most of whom have no employees) as well as dependent employees. We look at occupational groups that have been particularly affected by the Covid-19 pandemic: health professionals (employees and self-employed; ESeG code 22), personal care employees (code 53), cleaners and helpers and service employees in elementary occupations (code 73) and a group of small entrepreneurs, namely self-employed technicians, clerical support staff, services and sales workers (code 42) <sup>(3)</sup>. Students are excluded. The occupational groups represent different education levels and – except for the group of small entrepreneurs with roughly equal gender shares in the Netherlands and a higher share of men in Germany – women are overrepresented in the chosen occupations (for shares in the economy and case numbers, see Figures A1 and A2, Appendix).

Tables 1 and 2 show the shares of non-standard employment, namely self-assessed part-time, marginal employment (defined as employment of less than 15 hours), fixed-term employment, temporary agency work and employment in more than one job/business for both Germany and the Netherlands. *Health professionals*, with few exceptions (male part-time and more than one job/business for the Netherlands), display below-average or average shares of non-standard employment if compared with the total economy. *Personal care employees*, with few exceptions, display higher than average shares of non-standard employment; there are very high percentages of part-time and marginal employment in this sector, particularly for women, but much higher than average shares also for men. The shares of fixed-term employment are also considerably higher than average in Germany – particularly for men. In the Netherlands, there is a higher than average share of fixed-term employment for male personal care employees, but the percentage is lower for women, while the same trend is evident for temporary agency work. *Cleaners and helpers and elementary service employees* have much higher than average shares of non-standard employment on all indicators in both countries, and for both men and women. Although both men and women are affected, women are much more likely to work part-time and particularly part-time with marginal hours – the share of part-time

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2. The ESeG classification is applicable across European countries and combines ILO working status, status in employment, occupation in employment (ISCO-08) and self-declared labour status (for details, see European Commission 2014).
  3. This group comprises self-employed personal carers, among others, whereas self-employed cleaners are included in a different group of small entrepreneurs (self-employed drivers, crafts, trades and elementary workers), which we do not consider here. The ESeG classification also includes the self-employed at managerial level, which we do not consider either.

work is above 40% in both countries. In both countries, male cleaners and helpers and elementary service employees are more likely than women to have temporary agency contracts; the same is true for fixed-term contracts, though only in Germany. This occupational group also has more than one job more often than the average worker. The group of *small entrepreneurs* (technicians, clerical support, services and sales) has higher than average shares of part-time employment, for men only, in both countries; however, importantly, the shares of marginal part-time workers are higher than average, with women being particularly likely to have a marginal job. In the Netherlands, this group of small entrepreneurs is also overrepresented in the category 'more than one job/business'. It is important to emphasise that for female personal care employees, as well as cleaners and helpers and elementary service employees, non-standard employment – and particularly part-time work, which represents over 90% of employment in this sector in the Netherlands – is clearly the norm, rather than standard employment.

**Table 1: Germany: non-standard employment for selected occupations and total economy by gender, 2018**

	Part-time (self-assessed)		Marginal emp. (<15 hours)		Fixed-term		Temp agency		More than one job/business	
	male	female	male	Female	male	female	male	female	male	female
Health professionals	10.9	40.4	3.1	6.6	18.7	14.4	1.6	1.0	7.8	8.6
Personal care employees	37.0	68.8	6.1	16.4	35.1	21.3	3.6	2.5	4.4	5.9
Cleaners and helpers & elem. service employees	41.4	86.7	21.9	47.7	18.5	9.4	8.4	2.9	7.0	8.0
Self-empl. techn., clerical support, services & sales	13.8	41.7	5.9	18.9	n/a	n/a	n/a	n/a	3.3	5.1
<b>Total economy</b>	<b>9.6</b>	<b>47.3</b>	<b>3.7</b>	<b>11.8</b>	<b>7.5</b>	<b>7.8</b>	<b>3.7</b>	<b>2.0</b>	<b>4.8</b>	<b>5.9</b>

**Source:** EU-LFS microdata, authors' calculations. Students excluded. na: not applicable.

**Table 2: Netherlands: non-standard employment for selected occupations and total economy by gender, 2018**

	part-time (self-assessed)		marginal emp. (<15 hours)		fixed-term		temp agency		more than one job/business	
	male	female	male	female	male	female	male	female	male	female
Health professionals	37.9	74.5	1.5	5.5	15.3	12.2	1.3	1.0	13.7	11.6
Personal care employees*	68.5	92.2	8.9	14.9	22.3	12.9	5.2	1.4	8.6	8.6
Cleaners and helpers & elem. service employees	44.2	96.2	7.6	43.3	19.7	21.7	6.3	3.9	10.0	13.5
Self-empl. techn., clerical support, services & sales	26.3	63.8	9.0	21.7	n/a	n/a	n/a	n/a	11.0	11.0
<b>Total economy</b>	<b>21.4</b>	<b>73.5</b>	<b>3.9</b>	<b>11.0</b>	<b>14.5</b>	<b>16.7</b>	<b>5.0</b>	<b>3.2</b>	<b>6.4</b>	<b>8.8</b>

**Source:** EU-LFS microdata, authors' calculations. Students excluded. n/a: not applicable.

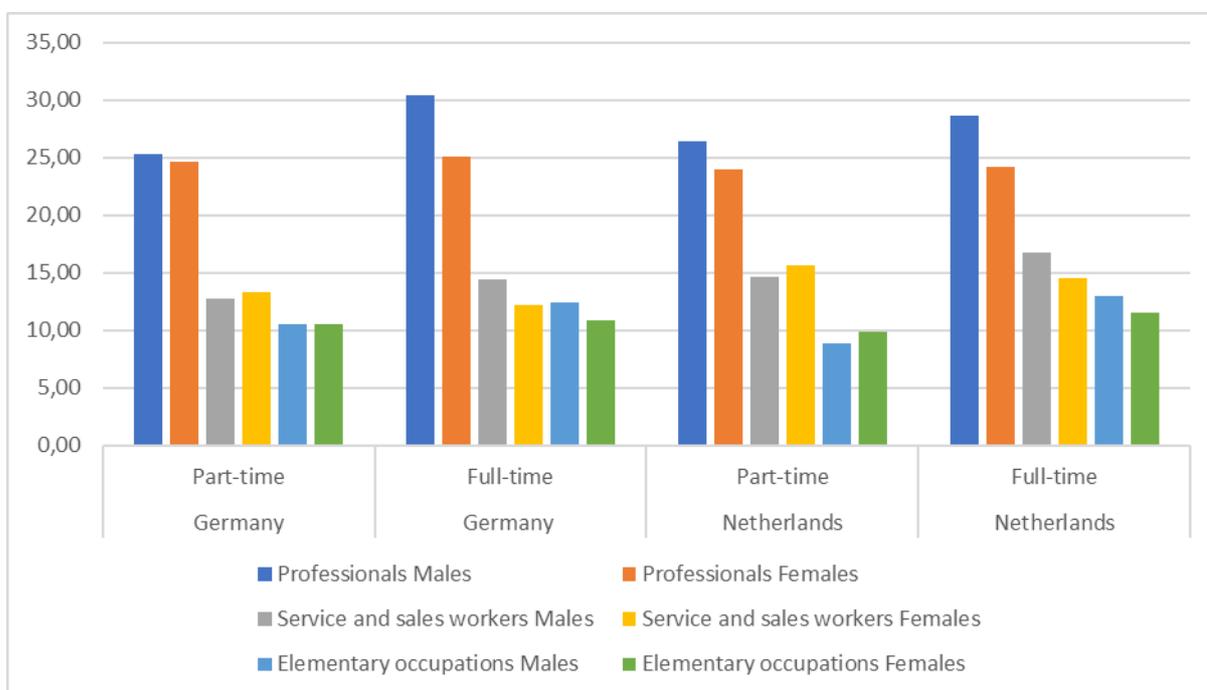
\*Relatively low case numbers for male personal care employees.

High shares of part-time employment (and particularly marginal employment), as depicted here for personal care workers, cleaners/helpers and elementary service employees, are particularly problematic when they are combined with low wages. Given that EU-LFS earnings data have strong limitations (<sup>4</sup>), Figure 2 uses SES data (with more limited detail on occupational groups) to show hourly earnings for part-time and full-time workers in the respective broad occupational groups. The findings are complex: part-time workers are in most – but not all cases – worse off than full-time workers; the well-known gender gap in favour of male workers is only evident when full-time employment is considered. Importantly, in view of the fragmentation concept, the earnings gap between *professionals (including health workers)* and the two other groups is considerable. Whereas *part-time service and sales workers (including personal care)* are better off in the Netherlands, elementary occupations (*including cleaners and helpers*) fare slightly better in Germany. Overall, earnings are more compressed in the Netherlands than in Germany. Given the very high percentage of part-time employment and low earnings in the group of *cleaners and helpers*, fragmentation is clearly an issue. To a more limited degree, this is also the case for *personal care employees*.

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4. EU-LFS data only contains monthly wage information in deciles. As complementary information, Figures A1 and A2 (Appendix) provide information on low, medium and high earnings for full-time workers (self-assessed) by detailed occupational group. A high incidence of low monthly wages even among full-time employed (as is the case, for example, for female cleaners in Germany) implies fragmentation.

**Figure 2: Hourly earnings (in Euro) for professionals (health), service and sales workers (personal care) and elementary occupations (cleaners and helpers & elementary services) by gender, 2018**



**Source:** EU-SES, aggregate data.

Note: Total age group; ISCO only available at level 1; NACE 'Education; human health and social work activities; arts, entertainment and recreation; other service activities for professionals and services and sales workers' and NACE 'Services of the business economy' for cleaners and helpers.

In a final step, Tables 3 and 4 provide an indication of overlapping forms of non-standard employment for women in Germany and the Netherlands. The figures depict the shares of female part-time workers (self-assessed) (see Tables 2 and 3) who at the same time have a fixed-term contract, a temporary agency contract or more than one job. They also show combinations of female marginal employment and fixed-term contracts. Overlapping forms of non-standard employment are more common in the Netherlands than in Germany. German *female personal care employees* have considerably higher shares of part-time or marginal work combined with fixed-term contracts than is the case for the total economy. Female *health professionals* are more likely than average to combine part-time work with more than one job. Given that the health professionals category includes both employees and self-employed, this result is likely to be due to combining work in a hospital, for example, with working in a private practice, which might be beneficial both in terms of earnings and flexibility. In the Netherlands, *female cleaners/elementary service employees* are more likely than average to combine part-time work with a fixed-term or temporary agency contract. As in Germany, a higher than average share of *female health professionals*, but also *cleaners/elementary service employees* and *small entrepreneurs* (technicians, clerical support, services & sales), combine part-time

work with another job/business. Such overlapping forms of non-standard employment imply labour market fragmentation in that they generate increased insecurities (e.g. job insecurity due to fixed-term work and income insecurity due to part-time employment). However, the example of health professionals also highlights the fact that overlapping forms of non-standard employment for some groups of workers are not necessarily problematic but more a matter of choice, that can be beneficial both in monetary and job security terms.

**Table 3: Germany: Overlapping forms of non-standard employment for selected occupations and the total economy, women 2018**

	Part-time with fixed-term contr.	Part-time with temp agency contr.	Part-time and more than one job	Marginal (<15h) with fixed-term contr.
Health professionals	9.4	0.7	12.8	7.1
Personal care employees	18.0	2.0	6.8	14.5
Cleaners and helpers & elem. service employees	9.1	2.4	8.1	6.7
Self-empl. techn., clerical support, services & sales	na	Na	6.4	na
<b>Total economy</b>	<b>7.6</b>	<b>1.4</b>	<b>7.4</b>	<b>7.0</b>

**Source:** EU-LFS microdata, authors' calculations. Students excluded. na: not applicable.

Note: Part-time information based on self-assessment.

**Table 4: Netherlands: Overlapping forms of non-standard employment for selected occupations and the total economy, women 2018**

	Part-time with fixed-term contr.	Part-time with temp agency contr.	Part-time & more than one job	Marginal (<15h) with fixed-term contr.
Health professionals*	10.3	1.0	14.4	28.6
Personal care employees	12.8	1.5	8.7	23.4
Cleaners and helpers & service employees	22.0	3.9	13.7	26.7
Self-empl. techn., clerical support, services & sales	n/a	n/a	12.9	n/a
<b>Total economy</b>	<b>16.3</b>	<b>2.9</b>	<b>10.4</b>	<b>30.1</b>

**Source:** EU-LFS microdata, authors' calculations. Students excluded. na: not applicable.

Note: Part-time information based on self-assessment.

\*Small case numbers.

## Discussion and conclusions

This paper has proposed the concept of labour market fragmentation. We define fragmented labour markets as labour markets characterised by an accumulation of insecurities. Fragmentation is evident where workers combine non-standard employment with low wages or where they combine several forms of non-standard employment – situations that are dominant in particular occupational groups.

The use of the concept of labour market fragmentation highlights vulnerability in some occupations, particularly among women, but at times also among men. For instance, almost 70% of female personal care employees in Germany are part-time employed, and 18% of these combine part-time employment with a fixed-term employment contract. In the Netherlands, 43% of women in the occupational group of cleaners and helpers and service employees are in marginal employment and 27% of these combine marginal part-time employment with fixed-term employment. Both occupations, and particularly cleaning, are at the same time characterised by low wages (EU-SES). These groups would have been 'invisible' if only data on the average economy had been used.

Additionally, the use of the concept of labour market fragmentation shows that in some occupations and groups, there are hardly any standard jobs left. For instance, in the Netherlands, among women working in personal care or as cleaners and helpers, nearly everyone has a part-time job (92% versus 96%), while in Germany the vast majority of women working as cleaners or helpers work part time (87%). At the same time these jobs are often relatively poorly paid, they are sometimes also fixed-term, and it is not uncommon for these part-time jobs to be combined with other flexible forms of employment so that the individual can make ends meet. In general, the concept of fragmentation does not take account of the reasons for non-standard employment, among them health, training and education or family-related reasons. These reasons for taking up part-time and temporary employment can vary greatly, across genders and countries (EU-LFS, not shown), and often have their basis in institutions and, partly, values.

Regarding earnings, there are stark differences in hourly wages between (health) professionals and occupations requiring lower levels of education, such as personal care or the work of cleaners and helpers. The latter two groups, and more so cleaners and helpers, face high risks of fragmentation. Earnings are more compressed in the Netherlands and low wages are less common than in Germany; however, people in elementary occupations, and among them cleaners and helpers, have very low wages if working part time. This not only has consequences for employment and earnings security, for those in a job, but also has important knock-on consequences for accessibility to and adequacy of social security, which is affected to

a large degree by the level of earnings and job tenure (with the exception of social minimum benefits). The concept of fragmentation thereby transcends labour markets, and its importance is highlighted in times of crisis. As a result of the pandemic, low-wage workers and workers in diverse forms of non-standard employment relationships have been especially vulnerable to job and income losses. Both in Germany and the Netherlands, social security coverage has been problematic for some of these groups during the coronavirus crisis, such as on-call/zero hours workers in the Netherlands and mini-jobbers in Germany (Bekker and Leschke 2020). Moreover, in times of crisis, new jobs will often be more likely to be with non-standard contracts than in times of economic upturns (e.g. CBS 2021 for the Netherlands, where about 75% of recent job finders have started in a flexible employment relationship).

Currently, none of the European comparative data sources allow us to capture fragmentation comprehensively. The data lack either detailed wage information (EU-LFS), detailed occupational categories for some countries or sufficient case numbers (EU-SILC), or comprehensive information on smaller enterprises (<10 employees) and non-standard employment including self-employed (SES). With its four-yearly rotating panel structure, the EU-SILC would make it possible to capture some additional dimensions that might further enhance the definition of fragmentation, such as extended periods of non-standard employment and persistent low wages. However, none of these data sources sufficiently capture the most flexible forms of employment, such as zero hours work or recent phenomena such as platform work.

The paper concludes that the concept of fragmentation shines a spotlight on vulnerable labour market groups that would otherwise remain hidden. In other words, it helps us to develop a more in-depth understanding of what growing flexibility in labour markets really entails in terms of cumulative insecurities for some labour market groups. It helps fuel discussion on making social security more inclusive for workers, regardless of their labour market position. Last but not least, with respect to occupations where up to 90% of (female) workers are in non-standard employment, often combined with other forms of non-standard employment and/or low wages, it raises questions as to the degree of labour market fragmentation which affluent societies can justify. Whereas deregulation of employment protection was originally justified as a way to increase employment opportunities (Rubery and Piasna 2017), and to fulfil the wishes of both employees and enterprises (see e.g. the Fixed-Term Work Directive), fragmented labour markets demonstrate exacerbated accumulation of insecurities within employment, with, moreover, important consequences for the ability to access suitable social security outside employment. Current policy initiatives are now calling for fairer working conditions. For instance, within the EU Pillar of Social Rights, principle 5, on secure and adaptable employment, underlines equal treatment and access to social protection and training, regardless of the type and duration of the employment relationship, and advocates transitions toward open-ended

employment. A Dutch committee advising the government has made similar recommendations, arguing that the current 'Dutch design' of regulation (and practice) of work not only is morally wrong, but also harms economic, social and societal development (Borstlap 2020).

## Bibliography

Bekker S. and Leschke J. (2020) Social Security Innovation for Inclusive Worker Support During the Corona Crisis?, JESP European Social Policy Blog, 29July 2020. [bit.ly/3dHVZLZ](https://bit.ly/3dHVZLZ)

Blau F. D., Koebe J. and Meyerhofer P. A. (2020) Who are the Essential and Frontline Workers?, Discussion Paper 1893, Berlin, DIW Berlin, German Institute for Economic Research.

Bosch C. and Weinkopf C. (2017) Reducing Wage Inequality: The Role of the State in Improving Job Quality, *Work and Occupations*, 44 (1), 68–88.

Borstlap H. (2020) In wat voor land willen wij werken? Naar een nieuw ontwerp voor de regulering van werk. Eindrapport van de Commissie Regulering van Werk, Den Haag, De Rijksoverheid. Voor Nederland.

Bosch G. (2009) Low-wage work in five European countries and the United States, *International Labour Review*, 148 (4), 337-356.

Calleman C. and Herzfeld Olsson P. (2016) Moves towards Increased Workforce Fragmentation among Labour Immigrants, in Carlsson L., Edström Ö. and Nyström B. (eds.), *Globalization, Fragmentation, Labour and Employment Law: A Swedish Perspective*, Uppsala, Iustus förlag, 161–183.

CBS (2021) Daling aantal flexwerknemers afgevlakt na begin coronacrisis, News article, Statistics Netherlands, available at <https://www.cbs.nl/nl-nl/nieuws/2021/20/daling-aantal-flexwerknemers-afgevlakt-na-begin-coronacrisis#:~:text=Vergeleken%20met%20een%20jaar%20eerder,in%20hun%20baan%20begonnen%20waren>

Clegg D. (2020) Unemployment Benefits in a New Age of Casual Work, *Global Dialogue*, 10 (1). <https://globaldialogue.isa-sociology.org/unemployment-benefits-in-a-new-age-of-casual-work/>.

Conen W. and Stein J. (2021) A panel study of the consequences of multiple jobholding: enrichment and depletion effects, *Transfer: European Review of Labour and Research*, (February), 1-18. doi:[10.1177/1024258920985417](https://doi.org/10.1177/1024258920985417)

Conen W. and Schulze Buschoff K. (2019) Precariousness among Solo Self-Employed Workers: A German–Dutch Comparison, *Journal of Poverty and Social Justice*, 27 (2), 177–197. DOI: 10.1332/175982719X154780213678

Doeringer P. B. and Piore M. J. (1971) *Internal Labor Markets and Manpower Analysis*, Lexington, DCHearth.

Eichhorst W. and Marx P. (2015) *Non-Standard Employment in Post-Industrial Labour Markets: An Occupational Perspective*, Cheltenham, Edward Elgar.

Eichhorst W., Marx P. and Tobsch V. (2015) Non-Standard Employment across Occupations in Germany: The Role of Replaceability and Labour Market Flexibility, in Eichhorst W. and Marx P. (eds.), *Non-Standard Employment in Post-Industrial Labour Markets: An Occupational Perspective*, Cheltenham, Edward Elgar.

Emmenegger P., Häusermann S., Palier B. and Seeleib-Kaiser M. (2012) How We Grow Unequal, in Emmenegger P., Häusermann S., Palier B. and Seeleib Kaiser M. (eds.), *The Age of Dualization: The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press, 3–26.

Eurofound (2020) *Labour Market Change: Trends and Policy Approaches towards Flexibilisation, Challenges and Prospects in the EU Series*, Luxembourg, Publications Office of the European Union.

European Commission (2014) Point 8 ESSnet-ESeG – Final report, DSS/2014/Sep/8c,

Luxembourg, Eurostat, <https://circabc.europa.eu/sd/a/519eafb9-186c-4e2c-a178-902f28501ba4/DSS-2014-Sep-08c%20ESSnet-ESeG%20-%20Final%20Report.pdf>

European Commission (2019) European Commission Employment and Social Developments in Europe (ESDE), Statistical Annex, Brussels, European Commission.

European Commission (2020) EU Labour Force Survey Database User Guide, Version September 2020, Luxembourg, Eurostat, <https://ec.europa.eu/eurostat/documents/1978984/6037342/EULFS-Database-UserGuide.pdf>

Findlay P. and Thompson P. (2017) Contemporary Work: Its Meanings and Demands, *Journal of Industrial Relations*, 59 (2), 122–138.

Fudge J. (2006) Fragmenting Work and Fragmenting Organizations: The Contract of Employment and the Scope of Labour Regulation, *Osgoode Hall Law Journal*, 44 (4), 609–648. <http://digitalcommons.osgood.e.yorku.ca/ohlj/vol44/iss4/1>

Grimshaw D., Fagan C., Hebson G. and Tavora I. (2017) A New Labour Market Segmentation Approach for Analysing Inequalities: Introduction and Overview, in Grimshaw D., Fagan C., Hebson G. and Tavora I. (eds.), *Making Work More Equal*, Manchester, Manchester University Press, 1–32.

ILO (2020) COVID-19 and Food Retail, Sectoral Brief, Geneva, International Labour Organization.

Kalleberg A. L. (2000) Nonstandard Employment Relations: Part-time, Temporary and Contract Work, *Annual Review of Sociology*, 26 (1), 341–365.

Kalleberg A. L. (2011) *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*, New York, Russell Sage Foundation.

Keune M. (2015) Shaping the Future of Industrial Relations in the EU: Ideas, Paradoxes and Drivers of Change, *International Labour Review*, 154 (1), 47–56. <https://doi.org/10.1111/j.1564-913X.2015.00225.x>

Larsen T. P. and Ilsøe A. (2021) Covid-19: Non-standard Work in Times of Crisis, in Ilsøe A. and Larsen T. P. (eds.), *Non-standard Work in the Nordics – Troubled Waters under the Still Surface*, Copenhagen, Nordic Councils of Ministers.

Leontaridi M. R. (1998) Segmented Labour Markets: Theory and Evidence, *Journal of Economic Surveys*, 12 (1), 63–101.

Leschke J. and Watt A. (2014) Challenges in constructing a multi-dimensional European job quality index, *Social Indicators Research* 118 (1), 1–31.

Leschke J. (2015) Non-standard Employment of Women in Service Sector Occupations: A Comparison of European Countries, in Eichhorst W. and Marx P. (eds.), *Non-Standard Employment in Post-Industrial Labour Markets: An Occupational Perspective*, Cheltenham, Edward Elgar, 324–352.

Leschke J. and Finn M. (2019) Labor Market Flexibility and Income Security: Changes for European Youth During the Great Recession, in O'Reilly J., Leschke J., Ortlieb R., Seeleib-Kaiser M. and Villa P. (eds.), *Youth Labor in Transition: Inequalities, Mobility and Policies in Europe*, Oxford, Oxford University Press, 132–162.

Matsaganis M., Özdemir E., Ward T. and Zavakou A. (2016) Non-standard employment and access to social security benefits, Research Note 8/2015, Brussels, European Commission.

Mattijssen L. M. S. and Pavlopoulos D. (2019) A Multichannel Typology of Temporary Employment Careers in the Netherlands: Identifying Traps and Stepping Stones in Terms of Employment and Income Security, *Social Science Research*, 77, 101–114.

Minijobzentrale (2020) Aktuelle Entwicklungen im Bereich der Minijobs, 1. Quartalsbericht 2020, Essen. [https://www.minijob-zentrale.de/DE/02\\_fuer\\_journalisten/02\\_berichte\\_trendreporre/quartalsberichte\\_archiv/2020/1\\_2020.pdf](https://www.minijob-zentrale.de/DE/02_fuer_journalisten/02_berichte_trendreporre/quartalsberichte_archiv/2020/1_2020.pdf)

Muñoz de Bustillo R., Fernández-Macías E., Esteve F. and Antón J.-I. (2011) E pluribus unum? A critical survey of job quality indicators, *Socio-Economic Review*, 9 (3), 447–475.

OECD and ILO (2020) The Impact of the COVID-19 Pandemic on Jobs and Incomes in G20 Economies, Paper prepared at the request of G20 Leaders, Saudi Arabia's G20 Presidency, Geneva, Organisation for Economic Co-operation and Development (OECD), International Labour Organization (ILO). [https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/multilateral-system/g20/reports/WCMS\\_756331/lang--en/index.htm](https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/multilateral-system/g20/reports/WCMS_756331/lang--en/index.htm)

Piasna A., Pedaci M. and Czarzasty J. (2020) Multiple Jobholding in Europe: Features and Effects of Primary Job Quality, *Transfer: European Review of Labour and Research*, (September). doi:[10.1177/1024258920958836](https://doi.org/10.1177/1024258920958836).

Rodgers G. (2007) Labour Market Flexibility and Decent Work, Working Paper 47, ST/ESA/2007/DWP/47, New York, Department of Economic and Social Affairs (DESA), United Nations.

Rubery J., Grimshaw D., Keizer A. and Johnson M. (2018) Challenges and Contradictions in the 'Normalising' of Precarious Work, *Work, Employment and Society*, 32 (3), 509-527.

Rubery J. and Piasna A. (2017) Labour market segmentation and deregulation of employment protection in the EU, in Piasna A., Myant M. (eds.), *Myths of employment deregulation: how it neither creates jobs nor reduces labour market segmentation*, Brussels, ETUI.

Schoukens P. and Barrio Fernandez A. (2017) The Changing Concept of Work: When Does Typical Work Become Atypical, *European Labour Law Journal*, 8 (4), 306–332. <https://doi.org/10.1177/2031952517743871>

Schmid G. (2016) Flexible and Secure Labour Market Transitions: Towards Institutional Capacity Building in the Digital Economy, Policy Paper 116, Institute of Labor Economics (IZA), Bonn.

Smith A. and McBride J. (2020) Working to Live, Not Living to Work: Low-Paid Multiple Employment and Work–Life Articulation, *Work, Employment and Society*, (September). doi:[10.1177/0950017020942645](https://doi.org/10.1177/0950017020942645)

Spasova S., Ghailani D., Sabato S., Coster S., Fronteddu B. and Vanhercke B. (2021) Non-standard workers and the self-employed in the EU: social protection during the Covid-19 pandemic, Report 2021.02, Brussels, European Trade Union Institute (ETUI).

Vosko L., MacDonald M. and Campbell I. (2009) *Gender and the Contours of Precarious Employment*, Abingdon, Routledge.

Warren T. and Lyonette C. (2018) Good, Bad and Very Bad Part-Time Jobs for Women? Re-examining the Importance of Occupational Class for Job Quality since the 'Great Recession' in Britain, *Work, Employment and Society*, 32 (4), 747–767. doi:[10.1177/0950017018762289](https://doi.org/10.1177/0950017018762289)

Yildirim T. M. and Eslen-Ziya H. (2021) The Differential Impact of COVID-19 on the Work Conditions of Women and Men Academics during the Lockdown, *Gender, Work and Organization* 28 (S1), 243–249. <https://doi.org/10.1111/gwao.12529>

## Data

Eurostat: EU Labour Force Survey (EU-LFS) data, available at:  
<https://ec.europa.eu/eurostat/web/lfs/data/database> (accessed December 2020)

Eurostat: Structure of Earnings Survey (SES) data, available at:  
<https://ec.europa.eu/eurostat/web/labour-market/earnings/database> (accessed March 2021)

Eurostat: EU Labour Force Survey (EU-LFS) microdata, contract no. 326/2018\_LFS\_EU-SILC.  
onilla García A. and Gruat J. V. (2003) Social Protection, Geneva, International Labour Office.

Castillo A. P. (2016) Occupational safety and health in the EU: back to basics, in Vanhercke B., Natali D. and Bouget D. (eds.), Social Policy in the European Union: State of Play 2016, Brussels, European Trade Union Institute (ETUI) and European Social Observatory (OSE), 131-135.  
<https://www.etui.org/publications/books/social-policy-in-the-european-union-state-of-play-2016>

Council of the European Union (1989) Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, Official Journal of the European Communities, L 183, 29 June 1989.  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31989L0391&from=EN>

Crouch C. (2006) Modelling the firm in its market and organizational environment: Methodologies for studying corporate social responsibility, Organization Studies, 27 (10), 1533-1551.

European Commission (2014) Communication from the Commission on an EU Strategic Framework on Health and Safety at Work 2014–2020. COM(2014) 332, Brussels, 6 June 2014.

Hall P. and Soskice D. (2001) Varieties of Capitalism: The Institutional Foundations of Comparative Advantage, Oxford, Oxford University Press.

## Appendix

**Table A1: Share of occupations of interest in economy by gender, 2018**

		<b>Health professionals</b>	<b>Self-employed technicians, clerical support, etc.</b>	<b>Personal care employees</b>	<b>Cleaners, helpers and service employees</b>
<b>Germany</b>	male	1.74	4.23	0.34	0.58
	female	3.3	3.06	2.09	5.75
<b>Netherlands</b>	male	1.89	5.43	0.59	1.15
	female	6.17	6.6	7.48	4.85

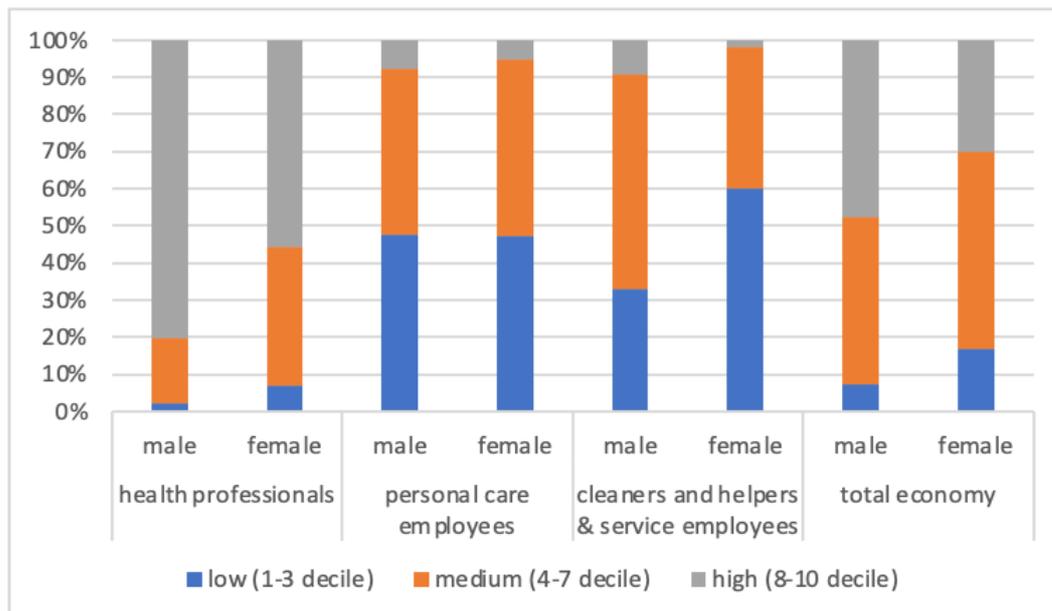
**Source:** EU-LFS microdata, authors' calculations. Students excluded.

**Table A2: Case numbers for occupations of interest by gender, 2018**

		<b>Health professionals</b>	<b>Self-employed technicians, clerical support, etc.</b>	<b>Personal care employees</b>	<b>Cleaners and helpers &amp; service employees</b>
<b>Germany</b>	Male	2314	5698	424	665
	Female	3879	3609	2411	6428
<b>Netherlands</b>	Male	444	998	115	176
	female	1251	1080	1429	792

**Source:** EU-LFS microdata, authors' calculations. Students excluded.

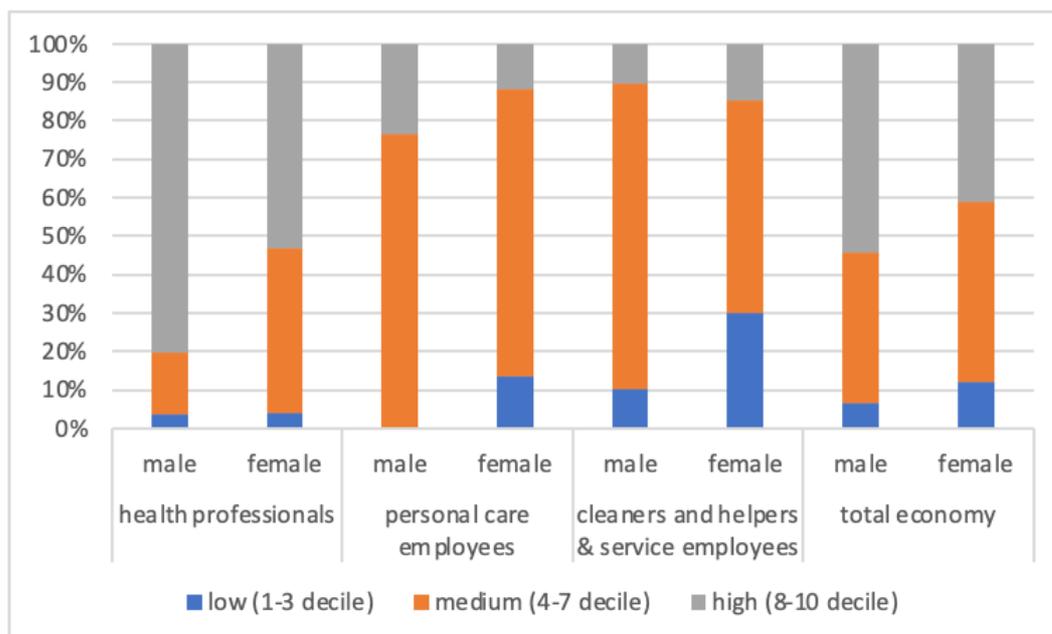
**Figure A1: Germany: wages for full-time workers for selected occupations and total economy by gender, 2018**



**Source:** EU-LFS microdata, authors' calculations. Students excluded.

Note: Information only available in income deciles. Full-time worker according to self-assessment.

**Figure A2: Netherlands\*: wages for full-time workers for selected occupations and total economy by gender, 2018**



**Source:** EU-LFS microdata, authors' calculations. Students excluded.

Note: Information only available in income deciles. Full-time worker according to self-assessment. na: not applicable.

\*Figures unreliable for personal care & cleaners given small case numbers.