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Posted Workers in Germany – Developments and New Legislations

CESifo Forum

Provided in Cooperation with:

Ifo Institute - Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Albrecht, Clara; Giesing, Yvonne; Rude, Britta (2022): Posted Workers in Germany – Developments and New Legislations, CESifo Forum, ISSN 2190-717X, ifo Institut - Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 23, Iss. 03, pp. 8-14

This Version is available at: https://hdl.handle.net/10419/263848

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Posted Workers in Germany – Developments and New Legislations

GERMANY'S ROLE IN EU POSTINGS

Germany is the main receiving country of posted workers in the European Union. In 2020, 16.9 percent of all postings from EU countries (around 0.4 out of 2.4 million) had Germany as a destination country (European Commission 2022). Figure 1 shows that the number of registered postings in Germany increased significantly over time, by 51 percent between 2012 and 2019, even though other EU countries recorded a much larger increase during the same period (e.g., Austria by 319 percent, Spain by 284 percent).¹ There could be several reasons for this, related to a stricter enforcement of the rules, an increase in the

awareness of the rules, the increasing

digitalization, or an actual increase in postings across the European Union due to an increase in the import of services. There was a drop in the number of postings to Germany from 2019 to 2020. While there were 505,737 postings in 2019, this number decreased to 410,908 in 2020 due to the Covid-19 pandemic.

To assess the magnitude of postings to Germany, a comparison of the overall work force seems informative (Figure 2). Postings to Germany with 410,908 represented 0.99 percent of the overall German work force (41.17 million) in 2020.²

Interestingly, compared to other EU countries workers posted to Germany do not loom large, considering the size of the German labor force. The shares of posted workers compared to the country's labor force are significantly higher, e. g., in Austria, Belgium and Switzerland with shares as high as around 4 percent. Due

We thank Frederic De Wispelaere for helpful comments and revisions and Jennifer Steigmeier for her valuable assistance. Mainly due to the high increase of the

Though, it must be noted that some workers are posted several times per year which could lead to an overestimation of the share. to the Covid-19 pandemic and the related restrictions on cross-border travel, shares for 2020 dropped in most countries.

DESCRIPTION OF POSTED WORKERS IN GERMANY

Data Sources on Posted Workers in Germany

There are three possibilities to measure the inflow of posted workers to Germany and describe their characteristics. The first measurement relies on A1 certificates registered by sending countries. Every time an employee conducts a work-related travel abroad, the employee needs to carry a so-called A1 certificate. This certificate is proof of the employee being socially insured in their home country. The obligation to carry this A1 certificate applies to all EU and EFTA countries. It applies to all postings, independent of its economic activity or duration, if the posting is below 24 months. It is the employer who requests these certificates for their employees. It is possible to use information gathered on these A1 certificates to describe the nature of postings taking place from a certain country. One can extrapolate the data gathered by sending countries to approximate postings taking place in a certain receiving country.

The second measurement relies on the Minimum Wage Registration Portal, the prior notification tool, governed by the German General Directorate of Customs.³ In certain economic sectors, employers have the obligation to notify postings prior to placing them in the sending country. In Germany, this notification takes place via the Minimum Wage Registration Portal and applies to the following sectors: setting up and dismantling trade fairs and exhibitions, building industry, meat industry, forestry, catering and hotel businesses, industrial cleaning, passenger transportation industry, fairground and amusement sector, haulage, transport, and associated logistics industry, prostitution industry, private security sector. Additionally, it does also not apply to family workers (Zoll 2022a). This means that the data gathered via the Minimum Wage Registration Portal is subject to certain limitations, as it only mirrors a subgroup of posted workers to Germany. Moreover, employers might not

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number of PDs A1 issued under Art. 12 by Germany.

³ We thank the German General Directorate of Customs for providing the data in March 2022.

⁴ The respective legislation is outlined under Article 16 (1 and 2) of the Minimum Wage Act (Mindestlohngesetz - MiLoG) in conjunction with Section 1 of the Ordinance on Minimum Wage Reporting Requirements pursuant to Minimum Wage Act, Posted Workers Act and Provision of Temporary Workers Act (Mindestlohnmeldeverordnung – MiLoMeldV).

go through with previously registered postings. The breakdown of the data by sectors is only available from September 2019 onwards.

Lastly, there is the eESSI IT System. The European Union introduced the Electronic Exchange of Social Security Information (eESSI) IT System to facilitate the data exchange on social security information among its Member States.⁵ The aim of the system is to facilitate the coordination on the establishment of social security rights in cross-border situations within the EU (European Union 2022). The system processes this information on A1 certificates in a unified manner and then sends it to receiving countries. In the beginning of 2021, there were still reports on problems and delays with respect to the rollout of eESSI (DSRV 2022). In Germany, the database on incoming A1 certificates has existed since 2008, but the data has to be deleted after 5 years due to data protection regulations.

Where Do Posted Workers to Germany Come from?

Posted workers sent to Germany are mainly from Poland, Slovenia, Slovakia, Croatia, and Austria. In fact, 27.5 percent of registered posted workers in Germany are from Poland and 14.9 percent from Slovenia (Figure 3). This means that the relative importance of Polish workers in all posted workers has fallen over time. Back in 2014, they still accounted for 36.5 percent of registered posted workers in Germany while Slovenian posted workers accounted for 12.1 percent (European Commission 2022).

When comparing these insights to a different data source, namely data on prior notifications on posted workers registered in the German Minimum Wage Registration Portal, the picture is slightly different. While Poland remains the main sending country of posted workers to Germany (40.4 percent in 2020 and 42.7 percent in 2021), the second largest group is Lithuania, accounting for around 9 percent of all prior notifications, and Rumania, accounting for around 7 percent of all prior notifications of incoming posted workers (Figure 4). The differences in the data might be since the Minimum Wage Registration Portal includes the haulage sector, while the A1 database does not. Additionally, not all postings registered in the portal might take place afterwards, and not all employers might make notice of their planned postings beforehand. Around 5 to 6 percent of notifications about planned postings to Germany are from Hungary, and around 4 percent from the Netherlands, Austria, Spain and Bulgaria.

The Duration of Postings to Germany

Postings to Germany took on average 181 days in 2021 when conducted by self-employed people, compared to 145 days for employees (eESSI Data). The

Figure 1
Increases in Received Posted Workers 2012–2019

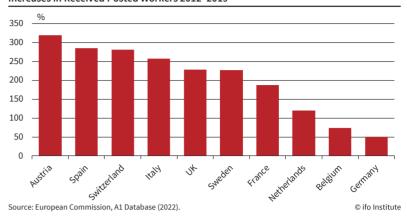


Figure 2
Share of Posted Workers in Comparison to Labor Force

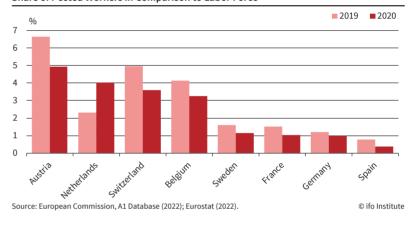
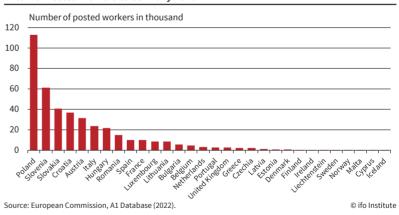


Figure 3
Inflow of Posted Workers to Germany 2020



average duration has increased steadily for postings of self-employed workers, from 160 in 2018 to 181 in 2021 (Figure 5). The average duration of employees' postings has remained stable, with a drop in 2019. In 2021, only 5.8 percent of all postings by self-employed people lasted less than 8 days, compared to 9.4 and 16.5 percent of all postings in 2020 and 2019, respectively. This means that short business trips only play a limited role in postings by self-employed people to Germany. For employee postings, this share is larger, accounting for nearly one-quarter of postings in 2021.

 $^{^{\}rm 5}$ $\,$ We thank the German Pension Insurance (DRV) for providing the data in March 2022.

Figure 4
Prior Notifications of Potential Incoming Posted Workers

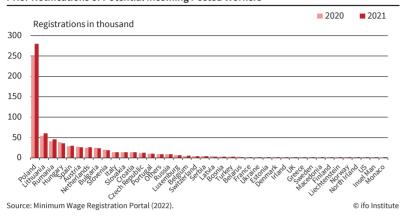


Figure 5
Average Duration of Postings to Germany

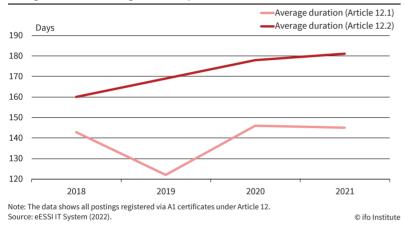
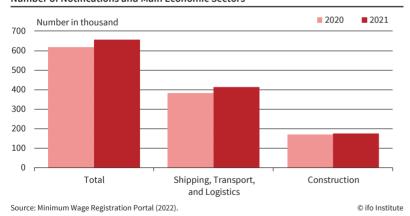


Figure 6
Number of Notifications and Main Economic Sectors



In 2019, 42.4 percent of employee postings took less than 8 days.

The Sectoral Distribution of Posted Workers in Germany

To study the impact of posted workers on labor market outcomes, it is necessary to understand to which economic sectors in Germany they are mainly posted. One can then assess if they play a considerable role in the overall number of employed workers in each sector.

Following data on prior notifications about postings, Figure 6 shows that most notifications took place in the Shipping, Transport and Logistic Industry (62.1 percent in 2020 and 63.2 percent in 2021), followed by the construction sector (27.6 percent in 2020 and 26.8 percent in 2021). The total number of notifications registered in the Minimum Wage Registration Portal increased from 617,253 to 656,153 between 2020 and 2021. The increase was larger in the Shipping, Transport and Logistic Industry (8.1 percent) than in the construction sector (3.0 percent). The increase could be related to economic relief after the economic contraction took place in the beginning of the Covid-19 pandemic.

There are several other economic sectors with more than 1,000 notifications in 2020, and 2021, respectively (Figure 7). The graph shows that the scaffolding trade plays another important role in all notifications, with more than 9,000 notifications in 2021. While the notifications in this specific sector have increased by 10.6 percent between 2020 and 2021, this does not apply to all other sectors with more than 1,000 notifications. The observed drop in the number of notifications has been especially large in the meat industry (a decrease of 89.9 percent). This is related to several new laws that impact the German meat industry (for details see the next section). Still, the setting up and dismantling of trade fairs and exhibitions as well as the cleaning of buildings industry report also significant decreases of around 25 percent between 2020 and 2021. This could be due to further impacts of the Covid-19 pandemic on these sectors, as exhibitions and conferences have been significantly impacted by lockdowns, distancing measures as well as new hygiene rules. The remaining economic sectors listed in the graph below report a decrease in the number of notifications between 5.7 and 10.1 percent for the period 2020 to 2021.

Lastly, we draw from data registered via the eESSI IT System.⁶ The European Union introduced the Electronic Exchange of Social Security Information (eESSI) IT System to facilitate the data exchange on social security information among its Member States. The data therefore gives an overview of the postings that took place (DSRV 2022). As Figure 8 shows, the construction sector remains the main receiver of postings in Germany. Especially the subsector of specialized construction activities plays a significant role, receiving more than 12,000 postings in 2021. This is more than double the number of the second most important sector, the manufacturing of fabricated metal products, except machinery and equipment. Different from the other data sources, certain manufacturing subsectors account for a crucial part of postings. These might

The eESSI System is subject to limitations, as only approximately 25 percent of registered postings are matched to an economic sector by the German Federal Employment Agency.

not be reflected in the Minimum Wage Registration Portal, as they are not located among the lower end of the wage distribution. These postings reflect the dominant role of the automotive sector in the German economy.

The Economic Impact of Postings on the German Labor Market

There might be concerns about postings leading to unemployment effects or wage decreases in Germany, as the employment of posted workers – although subject to certain aspects of the German labor law – might still be cheaper than the one of native workers. To assess the economic importance of posted workers in the overall German labor market, one can compare the number of postings to the number of workers in each economic sector. Overall, postings only accounted for 1 percent of jobs in 2021, when compared to the total of socially insured workers in Germany. The overall impact of postings on the German unemployment rate or wages might therefore be negligible and highly unlikely.

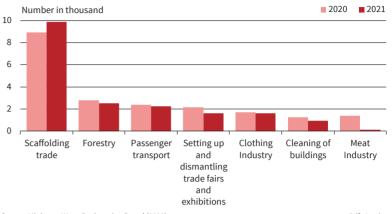
Still, postings accounted for 8.1 percent of jobs in the construction sector in 2021, when compared to the number of socially insured employees in this sector (2.0 million in June 2021). In the Shipping, Transport and Logistics sector they amounted to 18.0 percent, when compared to the number of socially insured employees in this same sector (1.9 million in June, 2021) (Bundesagentur für Arbeit, Beschäftigung nach Wirtschaftszweigen (WZ 2008), 2022). This means that, while postings play a negligible role in the overall German economy, making up for less than 1 percent of workers, they play a significant role in some sectors.

Due to Germany's demographic structure, the country is experiencing skill shortages in some occupational groups, which cannot be met by the German labor supply. 50 percent of companies perceive that these skill shortages are the greatest threat to their business development (ibid). In fact, 352 out of 801 occupational groups are subject to these skill shortages (Bundesministerium für Wirtschaft und Klimaschutz 2022). When relying on the bottleneck analysis of the Federal Labor Office, many of the affected jobs form part of the construction sector (Bundesagentur für Arbeit 2022a). It might therefore be unlikely that posted workers lead to job displacements in this factor. On the contrary, companies might take advantage of postings to meet their skill shortages (Das Handwerk 2020).

POSTED WORKERS AND THE GERMAN MEAT SECTOR

Germany is an important player in the European meat industry. In 2021, it accounted for 21.1 percent of pig

Figure 7
Rest of Notifications with More than 1,000 Counts

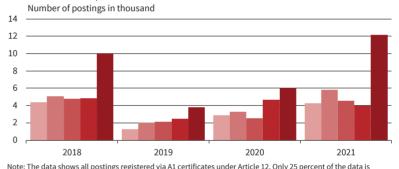


Source: Minimum Wage Registration Portal (2022).

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Figure 8
5 Main Sectors of Postings Registered via the sESSI IT System





Note: The data shows an postnigs registered was a Certificates under Article 12. Only 25 percent of the data is matched to an industry classification.

Source: eESSI IT System (2022).

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meat production in the EU-27 countries (producing 4.9 million tons of pig meat) and 15.7 percent of the European beef production (producing 1.1 million tons of beef meat) (Eurostat 2022). It is also one of the main producers of poultry. In the period 2006-2016 the turnover of the German meat sector doubled (Wagner 2017). This development is a result of the adaption of a low-cost business model which is primarily characterized by very low labor costs in comparison to other European countries. In Denmark labor costs in the meat industry are twice as high as in Germany and also Belgium's and the Netherlands's labor costs exceed the German labor costs by 65 percent (Erol and Schulten 2021). As a result, in recent years big European players in the European meat sector, such as Danish Crown (Denmark) and Vion (the Netherlands), have relocated many of their plants to Germany (Staunton 2021).

The German meat industry's low labor costs are accompanied by a low union density and no industry-level collective agreements to set minimum employment standards in place (Erol and Schulten 2021a). In addition, a restructuring process in the

⁷ As there can be multiple postings per worker and a posting can be of short duration, this might be an overestimation. We can thus interpret this as a maximum effect.

German meat sector that started in the 1980s led to the dominance of three large corporations that account for 58 percent of all pig slaughters in Germany (Schulte and Specht 2021).

The EU eastwards enlargement in 2004 in combination with EU Posting of Workers Directive of 1996 created an opportunity for German slaughterhouses to further reduce labor costs. Because no statutory or sector-wide binding minimum wage was in place in Germany, German meat producers could legally employ posted workers from eastern European countries at wages as low as 3 to 5 EUR, about a third of what the German core workforce in the industry would earn. The Posted Workers Directive stipulated that, in case no minimum wage was existent in the countries posted workers were sent to, the sending country's wage would be paid. (Wagner 2017; Solomon Hookins and Vladov 2021). Posted workers at subcontractors do not appear in official German statistics as they are not obliged to register. Therefore, official information about the incidence of posted workers in the meat industry is missing. Considering that 44.000 workers in the German core workforce subject to social security contribution of the meat industry lost their jobs between 1999 and 2014 and that survey information from the industry's trade union and work councils suggest that about 50 percent of abattoir works did not belong to the core workforce of the companies, posted workers used to play a crucial role in the German meat industry. Even though a nationwide statutory minimum wage was introduced in Germany in 2015 and a voluntary agreement to improve working conditions in the sector was put in place by the six largest German meat producers (65 percent market shares in the field of pig slaughtering) that would also end the employment of posted workers, precarious working conditions in the meat industry did not come to an end. The companies agreed to only take on contract workers hired in Germany and be subject to German labor law and social security provisions (Erol and Schulten 2021; Wagner 2017). Instead of integrating formerly posted workers into the core workforce, the new strategy of the meat producing companies was to use workers from German-based subcontracted firms, which continued to recruit their workers in eastern European countries. Despite the lack of official figures, evidence indicates that up to 90 percent of slaughterhouse workers were contract workers and that fundamental legal requirements are not met. According to a report of the North Rhine-Westphalian labor inspection authority, 9,000 violations of the law were found during the inspection of 30 slaughterhouses in 2019. Most infringements were related to excessive working hours and subsequent unpaid overtime, undermining the statutory minimum wage and illegal wage deduction (e.g., for rent, individual protective equipment, or transport) (Erol and Schulten 2021 and 2021a). As a reaction to ongoing public outrage and criticism in combination with a huge Covid-19 outbreak at a big meat packing plant that dragged the poor working conditions in the industry into the spotlight again, the German Government passed the Occupational Safety and Health Inspection Act in December 2020, immediately banning subcontracting in the meat sector (Staunton 2021). Since April 2021 there has been an additional prohibition of temporary employment in the sector. There has also been an obligation to electronically record working hours and store these records since January 2021, a minimum inspection rate of 5 percent of meat industry workplaces per year and a doubling of the fines to EUR 30,000 for violations of the Working Hours Act (Schulten und Specht 2022).

Since January 2022 a sector-wide minimum wage of EUR 11,008, negotiated through collective bargaining, for the meat industry has been in force. As a next step the collective bargaining partner agreed on further negotiations about additional agreements regulating working conditions such as working hours, holidays and extra payments, which would go beyond the general minimum standards in force for all workplaces in Germany (Schulten and Specht 2022).

And indeed, the data gathered on posted workers for this report confirms that postings to the German meat sector unsurprisingly only play a very limited role in overall postings today. Data from the Minimum Wage Registration Portal shows that they only accounted for 0.23 percent of all postings in 2020, and for 0.02 percent in 2021. Posted workers also play a negligible role in the number of employees in the meat industry. While estimations by the industry's trade union NGG suggest that in 2014 around 25,000 posted workers were employed in the meat industry, the number declined to only 144 workers in 2021 (Brümmer 2014).

Figure 9 shows that the number of employees subject to statutory social security contributions substantially increased since 2015 when the Minimum Wage Act was introduced, and the voluntary agreement stipulated to waive the employment of posted workers. While in 2014 143,145 employees subject to social security contributions worked in the industry, the number increased by 27 percentage points to 181,570 in 2021, surpassing the number of 2000 when 175,007 persons were employed (not shown in the figure, see Brümmer 2014). Effects of both the voluntary agreement and the Occupational Safety and Health Inspection Act are reflected in the data, with a stronger effect of the latter. The increase in employees subject to social security contributions was at 7 percentage points from 2014 to 2015, and an even more pronounced increase by 11 percentage points is observable between 2020 and 2021. For the companies which had signed the voluntary agreement, Jaehrling, Wagner, and Weinkopf (2016) found a weaker effect on

⁸ Further increases will be implemented: EUR 11,50 by 1 December 2022 (which will be below the statutory minimum wage which will raise to 12 EUR in October 2022) and EUR 12,30 by 1 December 2023.

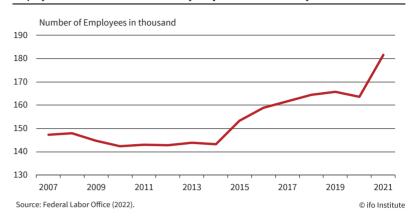
the number of core employees. From 2014 to 2015 the core workforce only increased by 3.7 percent, while the number of employees at subcontractors slighter decreased by 1.2 percent. This can most probably be explained by the fact that unlike posted workers, subcontracted workers are also subject to social security contributions.

Many have taken the recent increase in socially insured employees since 2015 as evidence that the Occupational Safety and Health Inspection Act, which led to a movement from contract work via subcontractors to directly employed workers, is working well. (Westfalenspiegel 2021). According to data published by one of Germany's largest newspapers, this applied to a total of 12,300 contract workers in 3 of the largest employers in the beginning of 2021 (Süddeutsche Zeitung 2021). Still, when relying on information by Deutschlandfunk (2021), a German radio program, and the German Trade Union Confederation DGB, the working conditions in the sector have not improved since then (Sepso and Szot 2021). On the contrary, while earning the same amount of money, namely the industry-level minimum wage, and due to the introduction of electronically recorded working hours, the sector must manage with less employees due to the new German legislation as well as with conducting the same workload in less time, causing more distress and pressure for remaining workers. This could mean that while certain aspects of the working conditions have improved, others remain a challenge. The work culture and management style might especially pose a threat to these conditions. In fact, according to the political scientist Stanimir Mihaylov, the law did not tackle the partly abusive behavior of foremen towards their subordinates as they were all taken over from the subcontracted firms (Deutschlandfunk 2021).

POLICY RECOMMENDATIONS

Based on the evidence outlined in this report, we can draw several policy recommendations: First, there is an urgent need to improve the data environment on posted workers from and to Germany. To the best of our knowledge, there is currently no entity gathering data on outflows of postings from Germany. To understand the contribution of German workers to the economy of other EU Member States, it would be useful to gather data on A1 certificates on postings from Germany to other countries centrally. Next, onboarding all Member States to the eESSI System, and enforcing the electronic registration of A1 certificates via the system would increase the reliability of data on posted workers. Additionally, the share of postings matched to industry classifications in the eESSI System should be increased to get a better understanding of the nature of postings to Germany. Moreover,

Figure 9
Employees in the German Meat Industry Subject to Social Security Contributions



to assess the labor market effects of posted workers on the German population, it would be helpful to dispose of disaggregated data at the regional level. One possibility would be to include posted workers in the matched employer-employee data (SIAB) gathered by the German Institute of Labor (IAB), or in the Foreign Central Register Data gathered by the Federal Ministry on Migration and Refugees (BAMF).

Next, the developments in the German meat industry show that foreign workers are not only vulnerable under postings, but also in other forms of employment. With the introduction of the statutory minimum wage, postings became unprofitable in the meat sector, resulting in the employment of foreign workers via German subcontractors and labor agencies. Policymakers interested in addressing these vulnerabilities should make sure that the legal frameworks impede the abuse of these same vulnerabilities at the European level. Policymakers should revise the conditions under which foreign workers are employed via temporary contracts or subcontractors. They should also strengthen enforcement and control mechanisms.

Lastly, postings seem to play a role in companies encountering skill shortages in Germany. Legislations that tighten the conditions under which employers can access workers from abroad should make sure that the hurdles do not become too large for employers. They should try to implement lean, transparent, and efficient processes behind these employment procedures. Digital platforms and tools can help to realize this.

REFERENCES

Brümmer, M. (2014), "Sozialdumping in der deutschen Fleischindustrie – Lohnsklaven machen deutsches Fleisch konkurrenzlos billig", *Der kritische Agrarbericht*, 145–150, www.kritischeragrarbericht.de/fileadmin/Daten-KAB/KAB-014/KAB2014_145_150_Bruemmer.pdf, (accessed 4 May 2022).

Bundesagentur für Arbeit (2022), Beschäftigung nach Wirtschaftszweigen (WZ 2008), https://statistik.arbeitsagentur.de/SiteGlobals/Forms/Suche/Einzelheftsuche_Formular.html;jsessionid=FD311BF460CC5B-FAF703E11E2B0C18D8?nn=20898&topic_f=beschaeftigung-sozbe-monat-sheft-wz (accessed 29 March 2022).

⁹ Around half of all employees working at the companies which had signed the voluntary agreement were subcontracted in 2014 and 2015

Bundesagentur für Arbeit (2022a), Engpassanalyse 2020, https://statistik.arbeitsagentur.de/DE/Navigation/Statistiken/Interaktive-Statistiken/Fachkraeftebedarf/Engpassanalyse-Nav.html;jsessionid=45CBF19FAC-949C4A3689BF5E2226F287 (accessed 30 March 2022).

Bundesministerium für Finanzen (2021), Vierzehnter Bericht der Bundesregierung über die Auswirkungen des Gesetzes zur Bekämpfung der illegalen Beschäftigung, https://www.bundesfinanzministerium.de/Content/ DE/Downloads/Zoll/vierzehnter-bericht-bekaempfung-illegale-beschaeftigung.html (accessed 5 May 2022).

Bundesministerium für Wirtschaft und Klimaschutz (BMWK) (2022), Fachkräfte für Deutschland, https://www.bmwi.de/Redaktion/DE/Dossier/fachkraeftesicherung.html (accessed 30 March 2022).

Das Handwerk (2020), Information für den Ausschuss, https://www.bundestag.de/resource/blob/699974/138cac03f-1175d7ac23b1252b06308f7/19-11-693-data.pdf (accessed 5 May 2022).

Deutschlandfunk (2021), Arbeitsbedingungen bei Tönnies & Co. Fleischarbeiter trotz neuem Gesetz unzufrieden, https://www.deutschlandfunk. de/arbeitsbedingungen-bei-toennies-co-fleischarbeiter-trotz-100.html (accessed 5 May 2022).

De Wispelaere, F., Y. Jorens, M. Rocca, E. Nerinckx and L. Duchateau (2021), "Cross-border Employment in the Live Performance Sector. Exploring the Social Security and Employment Status of Highly Mobile Workers", KU Leuven,

DSRV (2022), EESSI (Electronic Exchange of Social Security Information), https://www.dsrv.info/de/Navigation/20_Unsere_Verfahren/02_Internationaler_Datenaustausch/05_EESSI/EESSI_node.html (accessed 5 May 2022).

Erol, S. and T. Schulten (2021), "An End to Wage-dumping in the German Meat Industry", *Social Europe*, https://socialeurope.eu/an-end-to-wage-dumping-in-the-german-meat-industry (accessed 9 May 2022).

Erol, S. and T. Schulten (2021a), Renewing Labour Relations in the German Meat Industry, WSI Report No. 61e, https://www.boeckler.de/en/faust-detail.htm?sync_id=9158&msclkid=82f92698cf7311e-c97a0a60539b5345d (accsessed 9 May 2022).

Eurostat, (2022), Database, https://ec.europa.eu/eurostat/de/data/database (accessed 5 May 2022).

HIVA – Research Institute for Work and Society, https://hiva.kuleuven.be/nl/nieuws/docs/zkd8143-rapport-eind-web.pdf (accessed 2 May 2022).

Jaehrling, K., I. Wagner and C. Weinkopf (2016), "Reducing Precarious Work in Europe Through Social Dialogue", *IAQ-Forschung* 2016 (3), https://duepublico2.uni-due.de/servlets/MCRFileNodeServlet/duepublico_derivate_00045134/IAQ-Forschung_2016_03.pdf (accessed 3 May 2022).

LabourNet Germany (2021), Arbeitsschutzkontrollgesetz: Fallen Werkverträge und Leiharbeit (leider nur) in der Fleischindustrie Corona zum Opfer?, https://www.labournet.de/interventionen/asyl/arbeitsmigration/migrationsarbeit/fallen-werkvertraege-leider-nur-in-der-fleischindustrie-corona-zum-opfer/ (accessed 5 May 2022).

Proplanta (2022), Deutlich mehr reguläre Jobs in Fleischbranche, https://www.proplanta.de/agrar-nachrichten/agrarwirtschaft/deutlichmehr-regulaere-jobs-in-fleischbranche_article1648173113.html/ (accessed 5 May 2022).

RND (2021), Ende der Werkverträge: Was hat sich in der Fleischindustrie geändert?, https://www.rnd.de/wirtschaft/ende-der-werkver-trage-was-hat-sich-in-der-fleischindustrie-geandert-F2AJJEHR3WTAXC-CJOK2GB64NLM.html (accessed 5 May 2022).

Schulten, T. and J. Specht (2021), Ein Jahr Arbeitsschutzkontrollgesetz Grundlegender Wandel in der Fleischindustrie?, APUZ – Aus Politik und Zeitgeschichte, https://www.bpb.de/shop/zeitschriften/apuz/fleisch-2021/344835/ein-jahr-arbeitsschutzkontrollgesetz/ (accessed 3 May 2022).

Sepsi, S. and A. Szot, Das Arbeitsschutzkontrollgesetz in der Praxis. Eine erste Bilanz aus der Perspektive von Faire Mobilität, https://www.faire-mobilitaet.de/++co++4991a624-c2eb-11eb-a5fd-001a4a160123 (accessed 5 May 2022).

Solomon, E., V. Hopkins and A. Vladkov (2021), "Inside Germany's Abattoirs: The Human Cost of Cheap Meat", Financial Times Magazine, https://www.ft.com/content/7b77ec15-7384-42d0-9da0-76c4b7f0872b?m-sclkid=9bbc14f5cf7411ecb569b2d42b276638 (accessed 9 May 2022).

Staunton, B. (2021), "Change a Long Time Coming for Subcontracted Slaughterhouse Workers", HesaMag 23, https://etui.org/sites/default/files/2021-05/HM23_Change percent20a percent20long percent20time percent20coming percent20for percent20subcontracted percent-20slaughterhouse percent20workers_2021_0.pdf (accessed 5 May 2022).

Süddeutsche Zeitung (2021), Gesetz wirkt, https://www.sueddeutsche. de/wirtschaft/fleischbranche-gesetz-wirkt-1.5166285 (accessed 5 May 2022)

Techniker Krankenkasse (2022), Was ist die A1-Bescheinigung und wozu braucht man sie?, https://www.tk.de/firmenkunden/versicherung/tk-service-ausland/haeufige-fragen-zum-a1/was-ist-die-a1-bescheinigung-und-wozu-braucht-man-sie-2035130?tkcm=ab (accessed 5 May 2022).

Wagner, I. (2017), "Changing Regulations, Changing Practices? The Case of the German Meat Industry", Institute for Social Research Oslo, https://policycommons.net/artifacts/2245884/changing-regulations-changing-practices/3004581/ (accessed 2 May 2022).

Wagner, I. (2018), Workers Without Borders, Cornell University Press.

Westfalenspiegel (2021), Fleischindustrie: Gesetz zeigt Wirkung, https://www.westfalenspiegel.de/fleischindustrie-gesetz-zeigt-wirkung/ (accessed 4 May 2022).

Zoll (2022), Arbeitsbedingungen in der Fleischwirtschaft, https://www.zoll.de/DE/Fachthemen/Arbeit/Arbeitsbedingungen-Fleischwirtschaft/arbeitsbedingungen-fleischwirtschaft_node.html (accessed 5 May 2022).

Zoll (2022a), Notification, https://www.zoll.de/EN/Businesses/Work/Foreign-domiciled-employers-posting/Obligatory-notification-work-ers-posted/Notification/notification_node.html (accessed 5 May 2022).