

Rather a trigger than a cause of change. Responses of firms and workers to the statutory minimum wage in Germany

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Rather a trigger than a cause of change.

Responses of firms and workers to the statutory minimum wage in Germany^a

Andreas Koch^b, Andrea Kirchmann^c, Marcel Reiner^c, Tobias Scheu^c, Holger Bonin^d

Abstract

The introduction of the statutory minimum wage in Germany directly affected firms with wage earners paid less than EUR 8.50 per hour. This paper studies a variety of responses by employers and employees to adapt to this shock, in particular changes in compensation packages, employment at the extensive and intensive margin, working conditions, and position in product markets. Strategies of non-compliance are also in focus. The analysis is qualitative and based on 131 semi-structured, in-depth interviews with firm representatives, workers and members of work councils. A key finding is that while many firms and workers changed behavior with the introduction of the minimum wage, these changes are less response to concomitant changes in labor costs. Rather, it appears that the reform at many workplaces served as a catalyst to trigger or accelerate pending change processes.

Keywords: Minimum wage, Interview-based approach, Germany

JEL-Classification: J08; J28; J81

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1 Introduction

On January 1st, 2015, Germany introduced a statutory general minimum wage. The new minimum wage, which applies to the majority of sectors in the economy that did not have already a negotiated minimum wage at the sector level, or opt to make use of the possibility to negotiate a more gradual transition, set a nation-wide lower bound to hourly wage rates at the level of EUR 8,50. This minimum wage rate applies to all dependent workers including workers in subsidized minor employment, i.e. so-called mini-jobs. As an estimated four million workers had earned wages below the stipulated minimum wage threshold, the reform brought about a noticeable change in labor costs. Thus, many observers ex ante predicted negative overall impact on aggregate employment or unemployment, which so far however has not been substantiated (MLK 2016, 2018).

Minimum wages are probably one of the most researched labor market regulations. Empirical research in this realm concentrates on (un-)employment consequences and distributional effects of minimum wages (see Manning 2016, Belman/Wolfson 2014, Neumark 2008 for surveys). Quantitative research on minimum wages increasingly also examines other outcome variables, such as profitability and competitiveness of firms (Draca et al. 2011; Arntz/Rammer 2011), working hours (Michl 2000), intra-corporate wage structure (Aretz et al. 2012), motivation, satisfaction and health of employees (Pusch/Rehm 2017; Bossler/Broszeit 2016), or commitment to education and qualification (Hirsch et al. 2015).

Minimum wages have less frequently been researched using interpretive methods, however. Delivering data of a different genre by qualitative research can be useful, as it allows obtaining in-depth information concerning subjective perspectives and beliefs affecting well-being. It may also uncover complex relations and structures underneath estimated treatment effects and learning about touchy issues like non-compliance. This paper uses qualitative research methods in order to capture the manifold strategies of adaptation by employers and employees facing the introduction of the statutory minimum wage in Germany, the associated patterns of behavior as well as their, often complex, interactions. It is based on 131 semi-structured, in-depth interviews with firm representatives, workers and members of work councils, conducted especially for this purpose. Besides describing behavioral patterns of agents directly affected by the newly imposed general minimum wage, the study seeks to uncover underlying motivations and objectives, as well as specific framework conditions driving specific responses. These conditions may arise, on the one hand, from the general economic situation and the overall institutional setting governing labor markets. On the other hand, the regional, industry-specific and individual environment determines the operational framework when dealing with the minimum wage.

In general, the more powerful position of employers or employees in their relevant market, the more leeway they have (Manning 2003). Therefore, firms in different sectors or the economy or regions presumably respond differently to a general minimum wage, due to different degrees of competition among their providers or within their product market. Firms within a sector or region have different options to adapt, depending on their individual profitability and innovative capacity irrespective of the minimum wage. On the other hand, concessions employers have to make to their employees depend on how easy or difficult it is to maintain their staff or recruit new workers. At the same time, willingness of workers to make concessions as regards working conditions depends on their outside options, in particular expected costs of unemployment or mobility.

The expected range of responses to the minimum wage motivates the approach of this study to cover a diverse variety of individual cases, albeit restricted to a carefully pre-selected set of regions and branches. When analyzing the reactions and adaptation strategies to the introduction of the statutory minimum wage, the respective contextual conditions will be incorporated as specifically as possible.

The remainder of the paper is structured as follows. Section 2 explains methodology and design of the survey. Section 3 describes how hourly wage increases and extended documentation regulations directly associated with the new legislation were implemented. The following chapters focus responses and adaptation strategies of firms and workers in a range of domains: wage patterns (section 4), employment at the extensive and intensive margins (section 5), working conditions (section 6) and market positions of firms (section 7) Section 8 focuses on strategies of non-compliance. Section 9 summarizes the main results of the paper and draws some conclusions.

2 Survey design

Our study aims to identify, describe and analyze the potential impact of the general statutory minimum wage in Germany introduced on January 1st, 2015, on the behavioral patterns of affected firms and employees. We applied a qualitative research design based on guided interviews with decision-makers at the firm level⁵, with members of works councils and with employees. Firms' representatives, employees and representatives of works councils were recruited independently of each other, i.e. all 131 interviewees came from different firms.

All respondents were, at the time of the introduction of the minimum wage, working in firms directly affected by the introduction of the minimum wage. The surveyed employees themselves were thus also directly affected by the minimum wage.⁶

In order to capture different framework conditions, the interviews cover ten sectors with a particular relevance of the introduction of the minimum wage. In addition, the study focuses on five regions in Germany characterized by different economic conditions and bites of the minimum wage.

The basis of the interviews were interview guidelines tailored specifically to the various stakeholder groups addressed. A set of focal questions covered the main subjects concerning the cognitive interest and formed the structure of the guidelines. Besides basic business or personal information, these subjects comprised the possible direct effects and consequences of the minimum wage, such as the degree and nature of the impact, but also the interviewees' responses, measures and adaptation strategies in relation to wages, employment and working hours, working conditions and entrepreneurial strategies.

⁵ These were mostly executive boards or HR managers.

⁶ Firms that left the market as a result of the introduction of the general minimum wage were not part of the study. Even employees who lost their jobs could not be interviewed for research-practical reasons. A survey of these groups, however, might have revealed further aspects. When interpreting the results, it must also be kept in mind that the interviews were conducted two years after the introduction of the minimum wage. This could possibly have led to the fact that the minimum wage introduction was no longer an acute issue for some of the respondents, that their situation had consolidated, or that the memory of reactions and adaptation strategies had faded.

The individual topics were each initiated with an open question in order to give the interviewees the opportunity to freely name and explain their point of view and what they consider to be important aspects (i.e. „which actions did you take in reaction to the introduction of the minimum wage, and what was the main objective behind?“). If potentially important topics were not raised during the interview, they have been systematically re-examined by means of queries oriented to the guideline.

The focus of the analysis is on industries where the introduction of the minimum wage in January 2015 was a relevant intervention against the backdrop of previously paid wages. From the 20 industries with the highest proportions of employees earning less than EUR 8.50 (as of April 2014) determined by the Minimum Wage Commission (MLK 2016: 41), the ten with the highest absolute number of employees were selected.⁷ The resulting selection of industries represents almost 2 million employees who earned less than EUR 8.50 before the minimum wage was introduced. These are 81% of the employees in the sectors listed by the Minimum Wage Commission (MLK 2016: 43ff.) and 49% of all employees with a wage of less than EUR 8.50 in 2014. The high level of coverage of the low hourly wage range allows the results to give a condensed picture of action patterns associated with the introduction of minimum wages. In addition, it has a high generalization potential, even though it does not provide a representative picture in the statistical sense due to the qualitative methodology.

The study regions were selected according to the spatial planning regions (*Raumordnungsregionen*)⁸ to ensure that respondents within their respective regions act under similar framework conditions. However, in order to minimize heterogeneity of the framework conditions within the selected regions, the empirical survey was, as far as possible⁹, limited to one district within the selected region. In order to cover the widest range possible of behavior patterns and reactions to the introduction of the minimum wage, three districts were selected in the new (eastern) federal states of Germany and two in the old (western) federal states. Other selection criteria included regional economic power (as measured by GDP per person employed), the labor market situation (as measured by the unemployment rate and the Kaitz-index) and the industrial quota (share of employees in the manufacturing sector). In order to avoid excessive heterogeneity, a focus was placed on urbanized and rural regions.¹⁰

The aim of the selected approach was to capture the widest possible variety of behavioral patterns of firms and employees resulting from the introduction of the minimum wage. Within the selected industries and regions, it was important to include players with as many different characteristics as possible.

⁷ The ten sectors are agriculture, processing and preserving of meat, manufacture of bakery and farinaceous products, retail sale, postal and courier activities, food and beverage service activities, private security activities, activities of call centers, sports services and hairdressing and other beauty treatment.

⁸ The 96 German regional planning regions (21 of them in the new federal states) consist of several counties, with a few exceptions. The size of the spatial planning regions should ensure that a sufficient number of potential examination units in each case. For the regional planning regions, which each consist of one or more districts, the Federal Institute for Building, Urban and Spatial Research (BBSR) has comprehensive data on indicators, i.e. on economic performance, structure and dynamics, labor market or spatial structure (indicators and maps for spatial and urban development at www.inkar.de).

⁹ That is, as far as in the respective circle sufficient firms and employees could be found. Otherwise, there was an extension to the neighboring districts within the spatial planning region.

¹⁰ The following regions have been selected: Frankfurt/Oder, Stendal and Erfurt in the New Länder and Recklinghausen and Heilbronn in the Old Länder.

The selection and addressing took place in a two-stage process: Firstly, it was clarified whether the mentioned actors were directly affected by the introduction of the minimum wage. If so, the concerned actors were asked to participate in an interview.

In the period from April to October 2017, the 131 interviews¹¹ were conducted, which give a balanced picture of sectors and regions as well as firm sizes. The interviews with the firms' managers and works councils were always conducted by two interviewers, while interviews with employees were only conducted by one interviewee or one interviewer. With few exceptions, the conversations were recorded with the consent of the interviewees and literally transcribed in accordance with prescribed transcription rules. In order to avoid distortions or strategic responses, the interviewees were assured that their statements would only be published anonymously and that neither they nor their firms would be identifiable. The interviews were evaluated according to qualitative content analysis standards based on Mayring (2013).

3 Immediate effects

With the entry into force of the Minimum Wage Act as of January 1st 2015, two main changes with a direct effect on the employees and firms occurred. On the one hand, a change in the minimum hourly wage to EUR 8.50 for most employees¹² and, on the other hand, the extension of existing reporting and documentation obligations with regard to working times, which serve to check and comply with the minimum wage. The following sections describe the immediate effects of these two changes for affected employees and firms reported in the interviews.

3.1 Increasing the hourly wage

With regard to increasing the hourly wage, two groups of employees can be distinguished. For the first group of employees, the introduction of the statutory minimum wage implicated a higher monthly income, with otherwise unchanged working conditions. An employee details:

„The working hours have remained as before, the conditions are the same as before, only the wage was adjusted. However, it was still the same, the same activities, the same working hours. So in that respect, the bosses simply paid the wages and nothing more“ (Employee Cb5).¹³

Respondents of the second group contrastingly state that, although their hourly wage increased, they do not earn more money overall because their working conditions elsewhere have changed. Several employees indicate that, as a result of the introduction of the minimum wage, their working time has been reduced to such an extent that their payroll at the end of the month remained unchanged: *„I worked less, but I got about the same amount“* (Employee Eb3). Other respondents in this group report

¹¹ The 131 interviews comprise 51 firm representatives, 15 members of works councils, and 65 employees. The mean duration of the interviews was 45 minutes with firm representatives, 35 minutes with works council members and 30 minutes with employees.

¹² The main exceptions hold for young employees aged below 18 years, apprentices, interns and trainees, as well as long-term unemployed persons during the first six months of their re-entry into employment.

¹³ All interview quotes are translations from the original German transcripts. The code at the end of each quotation is an internal number for assigning each interview.

a reduction in other salary components (e.g. premiums, special payments). This has – despite unchanged working hours and increased hourly wages – not led to an increase in monthly income, as the following example of a slaughterhouse worker shows:

„Well, it's true, we earn more, the minimum wage, but that's what made our performance decline. Formerly, we got payed based on our performance and this made us more productive, literally. And that just disappeared. Nowadays, there is only this minimum wage, and that's it. [...] Yes, they have rigorously cancelled the performance-related payments. And it was justified by saying that it was now already included in the minimum wage“ (Employee Ab12).

The surveyed firms are affected in varying degrees and in different ways by the introduction of the statutory minimum wage. The intensity depends on the proportion of the workforce with hourly wages below the minimum wage before January 1st 2015, and on how great the difference between the previous wages of the employees and the newly introduced minimum wage level was. On the other hand, the intensity also depends on the room for maneuver of firms to adjust to the minimum wage. Differences between firms can also be observed in terms of the timeline of wage-adjustments. While a majority of the firms interviewed immediately adjusted the concerned employers' wages with the introduction of the minimum wage, some firms took – mostly gradual – adjustments in advance of the entry into force of the statutory minimum wage, as the following example illustrates:

„I have always adjusted wages a bit, before the introduction, so that for me the step would not be too big afterwards. And afterwards, we've been, I believe, between 30 and 50 cents below the minimum wage when it was introduced. So that made, let's say, the switch, not quite so fierce“ (Firm Aa3).

Some firms, for instance in the food and beverage service and the postal and courier sectors, report that they had to change their entire pay system due to the introduction of the statutory minimum wage, as they did not pay hourly wages, but piece rate wages so far.

The further increase of the minimum wage to EUR 8.84 as of January 1st 2017 had, according to most of the firms and employees surveyed, only a small impact on their situation and behavior, since this increase was relatively small in comparison to the initial impacts. Firms sometimes report that they could not deploy again the provisions implemented to compensate the costs rising due to the implementation of the minimum wage as these had already been depleted during the first round.

3.2 Extended documentation requirements

The second change directly related to the introduction of the minimum wage was an extension of the statutory requirements regarding the documentation of working hours. In Section 17 of the Minimum Wage Act, employers of marginally employed persons and employees in particular economic sectors¹⁴ are required to document the beginning, the end and the duration of working hours in order to enable the control of the compliance to the minimum wage.

¹⁴ These economic sectors are mentioned in section 2a of the statute for the abatement of illicit work (*Schwarzarbeitsbekämpfungsgesetz*). In the present study, this concerns the accommodation and food and beverage service industry, the postal and courier activities sector as well as the processing and preserving of meat activities (see also Deutscher Bundestag 2017).

In our empirical data, essentially two groups of firms can be identified according to their way of dealing with these extended documentation requirements: A first group reported only minor or no impacts of the introduction of the minimum wage. According to their own statements, these, mostly larger, firms had fulfilled the formal requirements laid down by the law already before it came into force. Therefore, they already had appropriate systems for the registration of working hours, as the following example illustrates:

„We have always had documentation of working hours for our employees [...]. So we have a workforce management system, which is necessary for running our business. We are thus able to document working hours, [...] so that we had no major challenges in the [new] documentation obligation“ (Firm Ba1).

Similarly, many employees report that the introduction of minimum wages has not led to significant changes in the documentation of their working hours.

A second group of firms reported significant changes and a relatively large administrative effort to fulfill the extended requirements of documentation. Although some firms complain rather unspecifically about an „increase in red tape“ (e.g. firms Aa4, Ba6), sometimes it is shown very concretely which (new) requirements the firms have to fulfill. A manager from a catering service firm states:

„Before [the new requirement], you counted the food. That's it, yes. And today, you have to look very carefully, when did he [the employee] start loading? And when did he unload his boxes again?“ (Firm Aa4).

The new requirements lead to a considerable additional expenditure of time for the human resources department or for the firm management. Some firms even report that it has been necessary to hire new staff (Firm Da5) or to contract external service providers (Firms Ea4, Aa5, Aa7) in order to accomplish the extended requirements. Costs for introducing electronic time recording systems are also reported in this context (Firm Ba9, Employees Db2, Cb9).

It is striking that especially medium-sized firms report particularly large conversion difficulties. In this segment of the economy, electronic time recording systems are not standard, unlike in large firms. However, unlike in small firms, the number of employees often surpasses a limit that makes the technical and organizational efforts involved in additional documentation, from the firms' point of view, relatively high.

On the part of the employees and works councils surveyed, the extended documentation obligations are evaluated ambiguously. It is positively noted that, in principle, transparency is created with regard to working hours and, on the part of the works councils, an extended possibility of inspecting the documents relating to working hours is seen, as a result of which business misconduct can be identified (Works Council Fc4). However, it is also stated by employees that, due to the documentation obligations on the part of the employers, more stringent attention is paid to the observance of working and break times (Employees Bb6, Eb5, Eb6 and Eb10). One other interviewee (Employee Db1) expresses the suspicion that the recording of working hours following the introduction of the minimum wage has resulted in an increased pressure on the workforce from the firm's management level and even manipulation of working hours by the firm management.

4 Wages

When it comes to paying employees, the minimum wage has a direct effect. Regarding responses and adaptation measures, two aspects are central: Firstly, measures to reduce personnel costs (Simon/Kaestner 2004) and, secondly, changes in the wage structures of the workforce (Aretz et al. 2012). The following sections focus on topic-specific patterns of action and their implications for central wage adjustment measurements.

4.1 Adjustment measurements for special payments and non-monetary wage components

Possible compensation for minimum wage-induced personnel costs by cutting or eliminating salary components, in particular special payments such as holiday or Christmas bonuses, performance-related bonuses and supplements as well as non-monetary wage components¹⁵, constituted a key area of interest in the interviews. In this regard, four constellations can be determined. First, there are cases where payments are still granted:

„Everything has remained the same as before or as has been usual for many years. Yes, there is a holiday and also a Christmas bonus“ (Works Council Fc8).

On the other hand, there are examples showing cuts and deletions following the introduction of the minimum wage:

„Before the minimum wage, we regularly received Christmas and holiday bonuses. However, this stopped with the introduction of the minimum wage“ (Employee Bb5).

Finally, there exists ample evidence of a stronger link between the granting of special payments and the economic situation of the firm and the individual performance of the workforce. The management level of an operation describes this as an example as follows:

„We’re looking at the whole list now, name by name, even more intensely than before, and look at each other: How much can we pay here? [...] in the past, we did not look that focused at how the shops are doing [...] everyone got Christmas money and now it’s really about how economical the business is, and the business, which does not perform well just gets less Christmas money than the other stores“ (Firm Aa8).

¹⁵ To what extent the minimum wage affects the claim to the above-mentioned wage bonuses was and is the subject of numerous legal proceedings and is also dealt with in the highest instances up to the Federal Labor Court (BAG). These include, for example, the judgments on special payments such as holiday and Christmas bonuses (5 AZR 135/16, 5 AZR 219/16 and 5 AZR 229/16), on Sunday and holiday supplements (5 AZR 431/16), on premium payments (5 AZR 441/16) or night work supplements (10 AZR 171/16). The basic tenor of these judgments is that all salary payments in direct exchange of employment fulfill the minimum wage claim, but that the employer's services rendered „without regard to actual work performance“ or „based on a specific statutory purpose“ (eg night bonuses), cannot be credited to the minimum wage (see <http://www.zoll.de/DE/Fachthemen/Arbeit/Mindestarbeitsbedingungen/Mindestlohn-Mindestlohngesetz/Berechnung-Zahlung-Mindestlohns/Sonstige-Lohnbestandteile-Zulagen-Zuschlaege/sonstige-lohnbestandteile-zulagen-zuschlaege.html> (accessed on 24/08/2018). The latter must, according to a judgment of the FOPH (ref.5 AZR 135/16), be calculated on the basis of the lower wage limit and be granted in addition to the (minimum) wage.

Systematic differences in terms of industry and firm size are hardly developed in this context. However, there are indications that negative effects of the minimum wage on special payments (reduction or cancellation) are more pronounced in smaller firms. Furthermore, there are indications that special payments are comparatively sparse in the study regions located in the new federal states and that they are, since the introduction of the statutory minimum wage, more precisely evaluated on their financial feasibility.

In addition to holiday and Christmas bonuses, other salary components such as performance bonuses, risk supplements or overtime bonuses, which may also be offset against the minimum wage¹⁶, were empirically investigated. An employee describes that this possibility is used in practice:

„Performance bonuses [...], they rigorously deleted [...]. They were, so to speak, directly included in the minimum wage” (Employee Ab12).

The changes reported in this context relate primarily to the cancellation of special payments, but also include a more targeted and performance-based distribution to individual employees. The more targeted granting of special payments since the introduction of the minimum wage can be observed in numerous cases, especially in the call center sector. Concerning the consequences of the wage components being added to the minimum wage, some findings suggest that the total earning is sometimes lower than before January 1st 2015, due to the offsetting of bonuses against the minimum wage:

„The bonuses have been cancelled. So in principle I cannot earn as much as I used to [...] in the past, that's EUR 1,350 [...] and before that I could earn EUR 1,600” (Employee Ab5).

„That was then completely eliminated [...]. There were many people who knew they would not earn much but that they can earn a lot by selling something. We also had really good people [...] who can sell everything to people. And they have [...] partly quit, because they no longer earned the same amount money they used to before - despite the introduction of the minimum wage” (Employee Bb2).

The evidence of the examples given, which indicates in some cases a decline in the earnings of the employees since the introduction of the minimum wage, is important in a wider context: From the point of view of some respondents, the result of the decline in earnings is a decline in motivation and willingness to perform. Some firms are aware of this problem:

„Of course, there was, quite frankly, also a lack of incentive for the staff [through the introduction of the minimum wage]” (Firm Ca2).

Some interviewees relate the decline in earnings to motivation and willingness to perform and recognize the need for action. However, measures taken by firms in this regard can hardly be observed. In some cases, this is justified by minimum wage-induced changes in economic opportunities, which leave no room for maneuver.

¹⁶ The eligibility refers to employer's benefits rendered „without regard to actual work performance” or „based on a specific statutory purpose”; in principle, „all the cash benefits of the employer in the exchange ratio between employer and employee are [...] suitable for fulfilling the minimum wage claim of the employee” (see <http://www.zoll.de/DE/Fachthemen/Arbeit/Mindestarbeitsbedingungen/Mindestlohn-Mindestlohngesetz/Berechnung-Zahlung-Mindestlohns/Sonstige-Lohnbestandteile-Zulagen-Zuschlaege/sonstige-lohnbestandteile-zulagen-zuschlaege.html> accessed on 24/08/2018). Tips (these receive employees as an expression of the satisfaction of the customers), contributions to the firm-level pension schemes or expense allowances are, on the other hand, principally not eligible (see *ibid.*).

In addition to the findings, which show the effects of the minimum wage on special payments, in many cases no changes in behavior are noted. The range of reactions to the minimum wage in the area of special payments is therefore broad.

4.2 Changes in in-house wage structures

Formally and directly, the introduction of the statutory minimum wage initially only affects the remuneration of those employees whose pay was previously below the statutory minimum wage. At the same time, however, the increase in wage rates in the affected lower wage groups has directly compressed the intra-firm wage distribution. Employees whose pay before the introduction of the minimum wage was above the statutory lower wage limit, had to deal with relative wage reduction if their wages were not adjusted adequately. The identification of correlations between the introduction of the minimum wage and the (possible) change in internal wage structures was a key research interest in the interviews. In numerous empirical cases, no adjustments were made in the wage groups not affected by the minimum wage. Two works councils describe this as follows:

„When the lowest pay structure was raised to the minimum wage the next higher-paid wage group was not raised. [...] The gap between one wage group to another had narrowed“ (Works Council Fc2).

„[The formerly better paid employees] received the same payment - in spite of the minimum wage. They are still above the minimum wage, but the others moved closer now“ (Works Council Fc3).

It is also possible to observe reductions in the wage gap between marginally employed employees and the ones subject to social insurance contributions:

„Well, we have permanent employees [...] the rest of our team are mainly marginally employed persons [...] the permanent employees who do not get paid the minimum wage as it is, because, of course, there are still taxes that need to be subtracted. So the bottom line is that they earn less than us, per hour. [...] For example, for one of my colleagues, who is permanently employed, only EUR 7.20 or so remain, I believe, she once told me“ (Employee Ab1).

Numerous interviewees from different sectors describe that differences in competence and qualification levels are not adequately reflected in the wages any more since the introduction of the minimum wage. Numerous firms recognize the need for action due to changes in the wage structure and therefore prove measures. In many cases, however, measures are hardly adopted. This is due to cost reasons. Other firms report selective changes, which are reviewed and, if necessary, performed according to performance criteria. These serve primarily to keep particularly valued workers. In addition, there are findings that prove adjustments in the wage groups not affected by the minimum wage. However, the increases were generally lower in percentage terms than it was the case for the wage groups directly affected by the minimum wage. Often, the increase in wage groups not affected by law happened also delayed.

Overall, it should be noted that changes in the internal wage structures are recognized by many respondents and that they are predominantly evaluated critically. Previous pay gaps, which reflected different job requirements, were shortened by the introduction of the minimum wage in many cases.

Although a recovery of wage differentials is often considered useful or even necessary, it is performed only in isolated cases.

5 Employment and working hours

In order to compensate for the minimum wage-related increase in wages, firms can also make changes to the size and composition of the workforce and to working hours.

The introduction of the statutory minimum wage may also be associated with particular working time effects, as it was associated with extended obligations to document working time in the field of marginally paid employment (Sauer/Wojciechowski 2016; Bossler/Hohendanner 2016).

For marginally employed employees on the mini-job limit of EUR 450 monthly¹⁷, advantages concerning income taxes and social insurance contributions can be lost, due to an increase in the hourly wage. This in turn leads to the incentive to reduce the hours in order to stay within the income-limit. From an operational perspective, on the other hand, it may be attractive to transfer marginally employed persons to a job requiring social insurance in order to avoid the extended documentation requirements that apply only to mini-jobs.

5.1 Structure and dynamics of the workforce

The interviews with firms, works councils and employees show that minimum wage-related increases in personnel costs have not led to any significant changes in the permanent workforce in the surveyed firms. A cost compensation due to increased employer-side dismissals is found in the surveyed firms in isolated cases only. This is justified by some firms that dismissals could not be made, as the existing workload cannot be managed with fewer staff. However, certain changes in the workforce structure and a decline in jobs in individual firms are reflected in the fact that jobs are no longer being reoccupied after employee-initiated departures of employees.

In general, it can be seen that the surveyed firms – since the introduction of the minimum wage – primarily see a decline in the employment opportunities for the low-skilled. It is reported that these people often do not provide the performance that is equivalent to paying the minimum wage and thus cannot be „taken along“, as the following example illustrates:

„I would have employed more [low-skilled people], who I might have paid with EUR 7.50 or 8, and that would have been fine for me as well, in terms of what they actually get done. And now I do not have them anymore. [...] It is not acceptable for me as an employer to pay them EUR 9.50 or 10. Because they simply did not bring the necessary quality“ (Firm Ea4).

A group of surveyed firms also reports that they pay more attention to the skills of the workforce and to a more effective use of staff when hiring new employees. This is in line with the results of minimum wage research, which suggests that firms compensate for a minimum wage increase in personnel costs

¹⁷ In Germany, employees can earn a monthly income of up to EUR 450 („mini-jobs“) without having to pay social security contributions.

by improving the workforce structure and increasing labor productivity, and therefore tend to recruit people with higher skills (Deere et al. 1995; Sabia et al. 2012; Gürtzgen et al. 2016).

Individual firms also report changes in the use of marginally employed employees. The trend has been to reduce the number of small or short-term jobs and increase the number of employees subject to social security contributions (Firms Ca1, Ca6, Da6). An agricultural firm justifies this procedure especially against the background of equal treatment of all employees:

„We have now social security for all of our employees, for the reason that even if someone is here for only eight weeks, previously he would have been free of social insurance, but I cannot pay a newcomer, EUR 8.60 and someone else who then pays for social security only about six Euro. That will not do. Now everyone has social security“ (Firm Ea3).

Some of the surveyed firms reported a decline in the number of internships offered as a result of the minimum wage.¹⁸ In some cases, internships are „almost dead“ (Firm Fa1) and are no longer used as a recruitment tool. This is justified – especially by smaller firms – by the fact that the costs and the benefits are not well-balanced when paying interns the statutory minimum wage. This is especially the case with voluntary internships not exempted from the minimum wage regulations. Another part of the firms does not share this argument and continues to employ trainees. Thus, the consequences of the introduction of minimum wages for the range of internships seem to be heterogeneous.

5.2 Changes in paid working hours and overtime

The surveyed firms have also carried out changes to the working hours in order to compensate for costs. Changes in working hours are often associated with changes in working conditions. In the following, the focus of the presentation is on changes in contractual and actual working hours. Working hours are an important parameter of action for the surveyed firms in order to compensate for minimum wage-related cost increases. Surveyed firms, works councils and employees reported essentially three different reaction modes. On the one hand, cost-neutral behaviors involving a reduction in both the amount of work and the amount of working hours are reported. In this context, a firm manager states:

„We let people work less in order to enable small savings for our firm to make up for the minimum wage“ (Firm Aa8).

A cost-neutral reduction of workload and working hours is carried out with different motivations. It is reported that hours have been reduced due to the increase in personnel costs because higher hourly wages are paid and thus no additional costs are incurred by the firms. These changes are mainly initiated by the employer side:

„Yes, of course I paid close attention to the working hours so that no one works additional overtime“ (Firm Aa5).

One firm points out that the reduction of the working time was undone, since the daily amount of work could not be mastered.

¹⁸ Internships with a duration of not more than three months and compulsory internships are exempt from the minimum wage regulations.

A second possibility are changes in working hours, which, from the point of view of the firms, lead to an increase in productivity and from the point of view of the employees surveyed, to a concentration of work. This means that the employees should do the same work performance in a shorter period and the demands on the employees increase: „*The same work has to be done in less than two hours*“ (Firm Fa3). Some interviewed employees report that break times have been cut: „[...] *that we did not have to record smoking breaks before then, and then, with the introduction of the minimum wage the smoking breaks had to be recorded and they were of course deducted from the working hours*“ (Employee Bb3). In addition, a work compression is perceived, which results from changed set-up times:

„Set-up times? [...] It used to be 10 minutes before the beginning of work, which was then then reduced from project to project. They tried to shorten that.“ (Employee Cb7).

Overall, there is no general pattern of behavior regarding the use of overtime, which is directly related to the introduction of the statutory minimum wage.

However, some of the interviewed employees report higher expectations to do overtime, while others report that more attention has been devoted to reducing overtime since the introduction of the minimum wage. Other employees did not report any changes in workplace practice with overtime since the introduction of the statutory minimum wage.

In summary, it can be stated that the effects of the minimum wage on work practices in employment and working time are heterogeneous. In many cases recorded, changes cannot be clearly attributed to the introduction of the minimum wage. However, the observations discussed in the interviews indicate that working time reduction and work intensification, in particular, can be understood as a behavior induced by the minimum wage.

6 Changes in working conditions

As a result of a minimum wage, the working conditions for the employees may also change. Adjustments in this area can arise, on the one hand, from the direct actions or strategies of the firms (and partly also of the employees) in the areas of work organization and vocational training. On the other hand, they can also be indirect consequences of other adaptation measures performed by the firm, which might affect, for example, the workload, the working atmosphere or the job satisfaction of the employees.

6.1 Labor organization

Whether changes in the areas of activity of the employees have taken place as a result of the introduction of the minimum wage, and to what extent work processes and task areas have been redesigned, is central to the assessment of the effects of the reforms. Organizational changes increasing the efficiency of the production process could help to cope with increased personnel costs and possibly reduced staffing levels.

In fact, many firms report that they have recently made changes in the area of work organization. Changes in the assignment of areas of responsibility are often justified by the firms with necessary increases in the flexibility of human resource allocation due to the changed economic conditions. Although many respondents depict a temporal coincidence of their firms' provisions to the introduction of the minimum wage, most of them cannot confirm a causal relationship. Rather, the minimum wage

is seen as the trigger, „[to initiate] one thing or another whose organization you should have changed already a long time ago“ (Firm Fa7). Specific measures reported relate, for example, to the restructuring of operation or shift schedules with the objective to save labor. One firm describes this as follows: „If we have two people in a given shift, we now try to get on with only one for one hour longer“ (Firm Fa10). With other measures, in turn, firms „try to optimize certain processes again“ (Firm Fa3) in order to compensate for the increased personnel costs.

Employees, on the other hand, often point out that, since the introduction of the minimum wage, areas of responsibility have been defined newly or assigned differently. Such approaches seem to be particularly important in the postal and courier services, but also in the field of sports services. Interviewees also report correlations of these measures with increases in their workload. One interviewee from the postal and courier industry, for example, reports that *“the districts where I am distributing the mail are getting bigger”* (Employee Db7). From the point of view of another employee, the introduction of the minimum wage meant that *„the tasks of three persons were summed up into the task of only one person, who then had to do them all in her shift or in the scope of her own work“* (Employee Bb8).

6.2 Workload of employees

From the perspective of an employee, employer-specific adjustments to working conditions can have either a positive or a negative impact. It would be positive, for example, if an organizational reevaluation of jobs is undertaken (Hirsch et al. 2015). It would be negative, on the other hand, if employers exert pressure on their employees, who cannot sidestep it because of poor general job opportunities. Especially employees dependent on their jobs are unlikely to protest against organizational changes that increase productivity by increasing work density, but also bring about stress, overwork, health problems and declining job satisfaction (Pusch/Rehm 2017; Bossler/Broszeit 2016).

The results of our survey reflect such negative side effects. However, this cannot be said to be a continuous phenomenon. For the most part, interviewees – employees, works councils and firm managers – see no causal relationship between minimum wage introduction and changed workload. Instead, it is pointed out that, in certain sectors such as call centers and event catering activities, the workload is traditionally high. Nevertheless, some of the interviewed employees and works councils’ representatives perceive a correlation between the introduction of the minimum wage and the deterioration of working conditions as well as an increasing workload. Above all, this applies to the retail, processing and preserving of meat, food and beverage service and call center industries. From the point of view of an employee, the following scenario applies if equal work performance with reduced working hours or streamlining of the work organization increases the strain on the employees:

„[It] is a matter of time that maybe one or the other will collapse because it just does not work anymore like this ... Yes, more and more colleagues are more likely to call in sick“
(Works Council Fc1).

Even more clearly, the interviewed employees report increased workloads and increasing work pressure. Workflows have been more strictly coordinated since the introduction of the minimum wage, and time limits have been kept tighter. In some cases there had been a reduction of staff, so that *„there were times when I worked for two, and consequently the pressure to perform was higher“* (Employee Bb14). In addition, duties had to be taken over that did not belong to the original area of responsibility.

In order to counteract the workload, the interviewed employees have developed different strategies. For example, some would point out to their supervisors that performance limits are exceeded and overtime or the workload expected from employers cannot be provided anymore. Occasionally, however, the firms have become active by providing improved equipment or by introducing health management. The aim thereby was not only to reduce the workload, but also to maintain in-house quality standards.

6.3 Job satisfaction and working atmosphere

Minimum wage-induced improvements or deterioration in job satisfaction may have different causes. Possible sources are adjustments of working time, work organization or workload, but also wage increases and a change in the structure of wages within the firm (Clark et al. 2009). Due to complex cross-connections and overlaps of the possible drivers of job satisfaction, however, it is difficult to separate the different factors.

An increase in job satisfaction resulting from the introduction of the minimum wage is barely reported in the interviews. There are also only scattered indications that the increase in wages at minimum wage levels has increased the employees' willingness to work, which in turn could have benefited the working atmosphere. Instead, rather fears or actual observations outweigh the fact that due to the changed wage structure in the workforces „*unrest*“ (Firm Ea3), „*dissatisfaction*“ (Employee Ab3), „*a conflict field*“ (Works Council Fc2) or „*injustice*“ (Firm Aa8) could arise or have arisen. The upgrade of the lower wage groups by the minimum wage has in part led to tensions and dissatisfaction in the workforce, especially when the intra-firm wage dispersion has become smaller because wages in upper wage groups have not been adjusted accordingly. Respondents report an increase in control and pressure because...

„The professionals look out and say, ‘You receive the minimum wage now, so make sure you do your job well, yeah?’ [...] So maybe it became more conflict-ridden between the well-paid workers and those who get the minimum wage, because the well-paid professionals say: ‘Your wages increase according to the law, our wages increase according to performance’“(Firm Aa4).

The negative experiences and perceptions dominating the working climate in terms of job satisfaction are reported by all the groups of stakeholders surveyed. Although those responsible for the firm are largely aware of the problem, many firms have not generally responded to minimum wage-induced wage compression. This is essentially due to the non-existent obligation and lack of financial resources.

7 Market-related entrepreneurial strategies

Firms can also use strategies to gain competitive advantage in the marketplace in order to offset minimum wage-related increases in labor costs and decreasing profit margins. For this purpose, both supply-side measures and changes in the production process are possible. On the supply side, changes to shop and sales prices (Lemos 2008, Gürtzgen/Rammer 2011), the product portfolio or the availability of the offer are conceivable. Changes in the production process include the rationalization of work processes through a complementary or substitutive use of technologies, or the externalization of work and production steps. In the descriptions of the surveyed firms, it becomes clear that the minimum wage is not always the cause of changes in entrepreneurial strategies: „*The minimum wage was not*

the sole cause, but that was the trigger or the catalyst that accelerated it” (Firm Da6). In the area of entrepreneurial strategies, the introduction of minimum wages is therefore more an impetus for modernization processes, which have been postponed for a long time, and changes, rather than their sole cause. Common exceptions to this are price strategies, which are taken as compensatory measures for increased labor costs.

7.1 Pricing strategies

The passing on of costs through changes in the price is apparently easily possible for a part of the firms. Price adjustments are often the only way to compensate for increased costs, says a surveyed interviewee of a bakery (Firm Da1). In part, prices were proactively raised even before the introduction of the minimum wage: *„We previously raised. Very moderate. Five cents, five cents. And thus, we were comfortably off*” (Firm Aa4), reports a catering firm. As a result, customers have gradually become accustomed to higher prices, so that a rise in costs caused by the minimum wage could be cushioned and at the same time a drop in demand could be avoided.

Another part of the firms increased its prices together with the introduction of the minimum wage once with reference to the minimum wage. Most of the surveyed firms reported that the customers had shown understanding for corresponding price increases. However, a smaller proportion of firms also reports a loss of customers due to the price increases. A big bakery about the consequences of a price increase:

„In the bakery industry, however, this means that customers are leaving, that they go to the discount store instead [...] but [due to] the loss of sales, the loss of customers the situation is intensified” (Firm Fa3).

It turns out that the enforceability of price increases is tied to the specificities of the respective industries and very often depends on local conditions, such as local competition and purchasing power. This amount varies and depends heavily on local conditions. Three different reaction patterns of customers can be identified: (1) the customers accept increased prices. (2) The price increases are accepted, but customer behavior is changing, for example, services are less frequently used. (3) Customers do not accept the price increase and existing contracts are canceled or they switch to other firms.

In order to avoid a decline in customers as a result of increased costs, firms occasionally report an expansion of their local marketing activities, for example by means of issue vouchers or the introduction of discounts. In some cases, concerns are expressed that the firm has to close down due to a price-related decline in demand.

Similar concerns with regard to price increases are also seen occasionally in bakeries: *„If I seek compensation through price increases, then I also have the problem of customers going away*” (Firm Fa3), says a larger firm in the industry. In the postal and courier services industry, according to the firms, costs cannot be passed on through prices, as the price is often the sole characteristic of a contract.

7.2 Changes to the offer of services or products

With changes in the product portfolio, firms can also react to a minimum wage-related cost increase. Of course, this possibility depends on the extent to which the products offered can be changed and modified at all. In addition, changes in the product portfolio are often associated with other cost compensation measures. Changes in the product range and range of services were implemented, in one

part of the firms through specialization (niche occupation), in another part through diversification: „We have purchased a wood -burning oven in order to reopen a new market” (Firm Ca2), reports an agricultural firm. Other firms, on the other hand, have slimmed down supply to simplify production processes: „The product portfolio is being streamlined to reduce the complexity” (Firm Fa3), and to focus on „profitable products” (Firm Aa8).

Another way to change the offer of services or products with the aim of cost reductions, are readjustments of the temporal and spatial availability of products or services, for example, by shorter opening hours or the closing of stores. For example, a bakery reports that it is increasingly trying to „optimize its store structure and to close bad-working ones” (Firm Fa3). However, in these examples it is not always clear whether the reported adjustments are due to the minimum wage.

7.3 Technology, Innovation, Investment

Cost compensation is achieved by some surveyed firms also through a change in technology use. Linked to this is the expectation of increased efficiency to maintain operational productivity. For example, investments in machinery are supposed to reduce labor costs or rationalize jobs. Other goals associated with the use of technological measures are process or product innovations designed to increase the efficiency or quality of the production process and generate competitive advantage. In the surveyed firms, various examples of technological adjustments were observed. These include the introduction of new machines, the automation of activities or the digitization of work processes.

7.4 Purchasing and Cooperation

The impact of the introduction of minimum wage on the relationship between the surveyed firms and their competitive environment is reflected above all in the fact that increased costs are passed on to business partners or suppliers and then passed on to customers. Changes in the way they work with business partners or other players in the market are reported by the surveyed firms only in individual cases. For example, since the introduction of the minimum wage, the challenge has been to make sure that business partners also „stick to the minimum wage” (Firm Fa7).

In part, production processes were partially or completely externalized or changes were made to the purchase in order to save time and money. A smaller firm of meat processing describes this as follows:

„You just try to make the work as small as possible, or how can I say that. For example, I do not do meat salad by myself anymore, because that is too time-consuming. I'll buy that cheaper” (Firm Ca8).

A cheaper product purchase can lead to higher profit margins when selling products. Thus, a cheaper use of goods can be used to compensate for increased labor costs. This compensation strategy cannot be used equally in all sectors. However, retailers are increasingly reporting changes in purchasing. For example, one of the retailers surveyed has standardized its purchasing and removed unprofitable products from the portfolio. At the same time, since the introduction of the minimum wage, he has increasingly relied on the more cost-effective purchase of goods abroad and on international cooperation.

8 Non-compliance: Practice, conditions and motivations

The previous chapters have described many adaptation options and forms in response to the implementation of the statutory minimum wage. In addition, however, there is the possibility that firms or employees who are faced with the minimum wage try to deliberately undermine the legal provisions in order to avoid costs or to secure employment. Similar inadmissible practices have been observed in other countries (Low Pay Commission 2017); concerning Germany, the data also suggests problems with non-compliance the minimum wage (Burauel et al. 2017). In addition, also the customs who is responsible for the verification of compliance has found various infringements. These include, among others, incorrect records of working time, non-transparent declarations of working time as a break and inadmissible billing practices of salary components. The findings of the control authorities on attempts of non-compliance to the minimum wage are also confirmed by findings from the trade unions (Körzell/Falk 2015) and from the incipient case law (Böning/Walter 2016).

The interviews conducted for this study provide in-depth insights into the patterns of action of firms and employees in connection with the introduction of the minimum wage, thus creating the opportunity to address attempts to avoid them.¹⁹ Below, the contextual conditions that encourage avoidance, the motivations of the actors justifying the practices of non-compliance, and the specific types of non-compliance attempts are described in more detail.

8.1 Motivational situations and general framework

Almost always material interests are at the root of the identified attempts of non-compliance, whereby the specific motivations differ according to the specific framework conditions. Aspects of social acceptance as well as sector and region specific factors are more or less conducive to the implementation of evasion attempts.

A distinction can be made between three central motivations that respondents associate with practices of non-compliance: the first motivational situation is characterized by a high labor supply of low-skilled or low-paid workers. This can lead to power asymmetries between firms and employees with a better bargaining position of the firms, which favors attempts of non-compliance by paying below the minimum wage or by not paying overtime. The second motive situation is characterized by an unfavorable economic situation or a weak profitability of firms – (also) as a consequence of increased labor costs after the introduction of the minimum wage. From the point of view of affected firms, this can mean that the economic challenge cannot be legally compensated and „ultimately forces the entrepreneur to engage in illegal activities“ (Firm Da5). The prospect of a higher income (employees) or better earnings (firms) characterizes the third motivational situation. In these cases, there are often

¹⁹ In principle, such practices are difficult to grasp directly in the context of empirical surveys. This is because the responses of interviewees directly affected tend to be characterized by the effects of social desirability in the sense that out of fear of penalties or sanctions by authorities, the employer and colleagues authentic information are not accessible. Therefore, any attempts by the research team to investigate any attempts at avoidance were only made towards the end of the interviews, in order to obtain as reliable information as possible due to the trust already generated. If the interviewees had not already addressed attempts of non-compliance or concrete non-compliance in the interview, the interviewer tried to abstract the decision-making situation as much as possible from the interviewee, in order to convey that conclusions about their own actions are neither intended nor possible. In the „shelter“ constructed in this way, the interviewee can expect more honest answers than would be possible at an early point in the conversation or in the case of (too) direct questions about the (own) use of inadmissible practices.

common interests between employers and employees, which usually lead to the minimum wage provisions being avoided cooperatively. This is often achieved by dodging into the black labor.

When taking the risk of non-compliance strategies, firms are also likely to benefit from these strategies. On the part of the employees, such benefits are harder to identify. In some cases, however, distress and existential fears on the part of employees and the associated power asymmetries between employers and employees are the cause for attempts of non-compliance:

„[...] so that they practically do not have their overtime and everything paid. [...] Because they are dependent on their home and on everything“ (Works Council Fc3).

This is particularly the case when other factors influence the social relationship between workers and firms, such as loyalty awareness, the link between work and residence status in the case of foreign workers, the employment constellation in families (number of persons contributing to the family income) as well as the type of employment (e.g. seasonal work). The willingness of employees to assert their rights thus depends on various factors. Overall, empirical evidence suggests that avoiding the minimum wage through unpaid overtime is a widespread phenomenon with a significant under-reporting. Since many workers do not dare to report the bypasses, only „the tip of the iceberg“ (Works Council Fc9) is known.

8.2 Practices of non-compliance

The simplest form of non-compliance is not to raise the wages to the statutory minimum wage. Such an approach is usually dependent on the employees accepting the lower salary because they are afraid of losing their job otherwise:

„And then we could think about whether we take EUR 7.10, or if we are all fired. We could also have said that we are looking for a new job, but the problem is that in all the establishments like pizza suppliers and so on, they also mostly paid below the minimum wage and had to go up now. So if there are suddenly [...] eight people knocking on the other pizza places, they are going to look that they keep their own employees first. It would not have been ideal in that period to quit one's job and that's why we chose the EUR 7.10 solution, which was also the better alternative, because we could keep our job. We were happy with that at first.“ (Employee Eb4)

In several cases far more subtle ways of non-compliance to the minimum wage, such as a „hidden“ non-compliance, can be identified, in which firms suggest their employees earnings above the minimum wage by means of piece-rate wages, but according to the interviewed employees, in practice cannot be achieved.

Another way of non-compliance is not recording working hours at all or not correctly, or by not remunerating working hours accordingly. This is described by many respondents as a common practice and is expressed in the fact that employment contracts were formally adjusted in line with the provisions of the Minimum Wage Act, but de facto unpaid additional work is provided:

„Someone who had a 40-hour contract before, gets a formal 30-hour contract then, but still has to do the same duties in the 30 hours. However, he needs 40 hours to do the work, but he gets the same amount of money.“ (Firm Ca1).

The fact that break times or periods of preparation and follow-up, which previously counted as part of the working hours, are no longer paid for since the introduction of the minimum wage represents

another variant of avoidance attempts. In addition to this non-payment of actually worked hours, also so-called „grey areas“ can be identified which, among others, established by a stricter regulation of break times or a partial (non-)remuneration of certain activities, such as the preparation and follow-up of the actual work. Compared to firms who primarily report on the wrongdoing of third parties, many employees from different sectors describe similar issues, which, however, mostly refer to their own experiences.

Another form of non-compliance of the minimum wage is black labor. Undeclared work occurs especially when employers and employees benefit from it and want it by mutual agreement. One interviewee describes this constellation as follows:

„Yes, if both parties are happy with it, it never comes out“ (Firm Aa4).

The implementation of black labor can be done in different ways. In addition to a full or partial compensation for working hours without official documentation, remuneration in the form of vouchers or natural resources is reported. For employees and firms, the main incentive for undeclared work is to save taxes and social security contributions so that hourly wages below the minimum wage lead to higher incomes than regular pay would:

„Oftentimes they offer:“ You do not have to give us your social security number now. You also get EUR 1.50 more«. This is done quite often. [...] I think that was the case with the minimum wage. Because it brings more profit for the employers because they have to pay less“ (Employee Bb6).

In comparison, statements of illegal employment are less common in the interviews than non-compliance to the minimum wage through unpaid overtime. Moreover, the actors rarely see a direct correlation between the incidence of undeclared work and the introduction of the minimum wage.

9 Conclusion

Interviewed more than two years after the introduction of the statutory minimum wage in Germany, it appears that respondents are quite placid concerning its effects. The ambivalent picture emerging in our in-depth qualitative study on the individual case level seems to be in line the quite neutral minimum wage impact appearing across different quantitative evaluation studies analyzing employment and wage effects of this major reform in the German labor market. Still Interviewees mention a wide range of changes associated with the minimum wage. More detailed inquiry, however, suggests that these are less response to concomitant changes in labor costs. Rather, it appears that the reform at many workplaces served as a catalyst to accelerate pending change processes, such as introduction of technological innovation or reorganization measures. Yet even as a catalyst or trigger, the introduction of the minimum wage may have produced important outcomes.

Most firms affected by the reform have adapted somehow. Workers in contrast, according to their own perception, had fewer options for actively accommodating to the minimum wage. Interviewed workers are in general satisfied with the reform, even if they mostly did not experience any major change in their total remuneration, or their work environment. Even in those cases where working conditions have worsened following the reform, individuals often seem to come to terms with the adaptation measures implemented by their employers.

Numerous low-threshold adaptation measures can be observed in the realms of working hours and work organization. These are often easy to realize, allowing compensation of the minimum wage shock on labor costs. Examples are reductions in contracted working hours, stricter rules concerning breaks, or adjustment of wage components not subject to the minimum wage.

It appears that wage effects are often not limited to those workers earning less than the minimum wage threshold prior to the reform. In many cases, there have been spillovers to other parts of the wage distribution, as firms seek to maintain a balanced wage structure overall. In some cases, such adjustment has been impossible or incomplete, for example due to cost pressure. Reported outcomes are conflicts within the workforce and productivity losses, which may be related to efficiency wage or fairness concerns. In order to counteract, some firms have attempted to achieve productivity-enhancing differentiation of remuneration by means of increased performance-based pay.

Many firms have adjusted their market-related business strategies to the balance increasing labor costs attributed to the minimum wage. For example, firms managed to raise prices as end consumers accepted this as justified in order to pay higher wages. Frequently the range and quality of products or services has been adjusted. Many firms consider such strategic measures to have worked well.

The interviews also uncover acts of or at least attempts of non-compliance. Workers report more unpaid overtime, for example. Firms and workers may even jointly agree upon non-compliance if that helps preserve the business and thus employment. Still labor cost saving arrangements frequently take place within legal boundaries. One example is shorter contracted working hours in exchange for a higher workload respectively productivity per time unit. Another example is stricter monitoring of workers and their time use.

Our findings overall suggest that problems of adjusting to the minimum wage were most stringent within medium-sized firms, which are often not endowed with the technical or organizational resources to cope with a sizeable minimum wage shock. This shows, for example, considering handling of the extended documentation requirements introduced with the minimum wage as tool for supervision. Small firms, in comparison, could better cope with the necessary adjustments due to their „on-board“ flexibility, while. Large firms were hardly affected, as they had adequate reporting tools established already prior to the reform.

Our qualitative analysis gives in-depth insight into how firms and workers handled the introductory phase of the statutory minimum wage in Germany. While our results, overall, suggest that the substantial shock to labor costs induced by the reform initially has not generated too substantial unwanted side-effects, this may no longer hold in the future. First, the reform was implemented in a phase of particularly strong labor demand. Second, our results suggest non-linearities in the sense that firms adapted exhausting efficiency reserves that exist only once. Therefore, the statutory minimum wage will require further qualitative monitoring at the firm and worker level, to observe closely responses to continuing adjustments to rising minimum wage levels and changing conditions over the cycle.

10 References

- Aretz, B., Arntz, M., Gregory, T. (2012), *The Minimum Wage Affects them All: Evidence on Employment Spillovers in the Roofing Sector*, IZA Discussion Paper 7047. Bonn.
- Arntz, M., Rammer, C. (2011), *Evaluation bestehender gesetzlicher Mindestlohnregelungen – Branche: Dachdeckerhandwerk. Projektendbericht*. Zentrum für Europäische Wirtschaftsforschung. Mannheim.
- Belman, D., Wolfson, P.J. (2014), *What Does the Minimum Wage Do?* W.E. Upjohn Institute for Employment Research. Kalamazoo.
- Böning, M., Walter, T. (2016), *Gesetzlicher Mindestlohn in Deutschland: Jahresbilanz der Rechtsprechung*, *Soziale Sicherheit*, 65(1): 16-21.
- Bossler, M., Hohnendanner, C. (2016), *Freie Mitarbeit statt Mindestlohn? Werk- und Dienstverträge in deutschen Betrieben vor und nach Einführung des gesetzlichen Mindestlohns*. *Sozialer Fortschritt*, 65 (8): 95-201.
- Bossler, M., Broszeit, S. (2016), *Do Minimum Wages Increase Job Satisfaction? Micro Data Evidence from the new German Minimum Wage*, IAB Discussion Paper 15/2016, Nürnberg.
- Burauel, P., Caliendo, M., Fedorets, A., Grabka, M.M., Schröder, C., Schupp, J., Wittbrodt, L. (2017), *Mindestlohn noch längst nicht für alle: Zur Entlohnung anspruchsberechtigter Erwerbstätiger vor und nach der Mindestlohnreform aus der Perspektive Beschäftigter*, *DIW-Wochenbericht* 84(49): 1109-1123.
- Clark, A. E., Kristensen, N., Westergård-Nielsen, N. (2009), *Job Satisfaction and Co-Worker Wages: Status or Signal?* *The Economic Journal*, 119(536): 430-447.
- Deere, D., Murphy, K.M., Welch, F. (1995), *Employment and the 1990-91 Minimum-Wage Hike*. *American Economic Review Papers and Proceedings*, 85(2): 232-237.
- Deutscher Bundestag (2017) *Antwort der Bundesregierung auf die Kleine Anfrage der Abgeordneten Beate Müller-Gemmeke, Lisa Paus, Dr. Tobias Lindner, weiterer Abgeordneter und der Fraktion Bündnis 90/Die Grünen – Drucksache 18/11304: Finanzkontrolle Schwarzarbeit: Kontrolle von Mindestlöhnen 2016*, Bundestagsdrucksache 18/11475. Berlin.
- Draca, M., Machin, S., van Reenen, J. (2011), *Minimum Wages and Firm Profitability*, *American Economic Journal: Applied Economics*, 3(1): 129-151.
- Gürtzgen, N., Rammer, C. (2011), *Evaluation bestehender gesetzlicher Mindestlohnregelungen – Branche: Abfallwirtschaft, Projektendbericht*, Zentrum für Europäische Wirtschaftsforschung. Mannheim.
- Gürtzgen, N., Kubis, A., Rebien, M., Weber, E. (2016), *Neueinstellungen auf Mindestlohniveau: Anforderungen und Besetzungsschwierigkeiten gestiegen*, IAB-Kurzbericht Nr. 12/2016.
- Hirsch, B.T., Kaufman, B.E., Zelenska, T. (2015), *Minimum Wage Channels of Adjustment*, *Industrial Relations*, 54(2): 199-239.
- Körzell, S., Falk, C. (Eds., 2015) *Kommt der Mindestlohn überall an? Eine Zwischenbilanz*. VSA Verlagsgesellschaft, Hamburg.
- Lemos, S. (2008), *A Survey of the Effects of the Minimum Wage on Prices*, *Journal of Economic Surveys*, 22(1): 187-212.
- Low Pay Commission (2017), *National Minimum Wage. Low Pay Commission Report 2017*, London.
- Manning, A. (2003), *Monopsony in Motion: Imperfect Competition in Labor Markets*. Princeton.

- Manning, A. (2016), *The Elusive Employment Effect of the Minimum Wage*, CEP Discussion Paper 1428, London.
- Mayring, P. (2013), *Qualitative Inhaltsanalyse*, S. 468-475 in: Flick, U.; von Kardorff, E.; Steinke, I. (Hrsg.): *Qualitative Forschung. Ein Handbuch*. Reinbek bei Hamburg.
- Michl, T.R. (2000), *Can Rescheduling Explain the New Jersey Minimum Wage Studies?*, *Eastern Economic Journal*, 26(3): 265-277.
- MLK (Mindestlohnkommission, 2016), *Erster Bericht zu den Auswirkungen des gesetzlichen Mindestlohns. Bericht der Mindestlohnkommission an die Bundesregierung nach § 9 Abs. 4 Mindestlohngesetz*, Berlin.
- MLK (Mindestlohnkommission, 2018), *Zweiter Bericht zu den Auswirkungen des gesetzlichen Mindestlohns, Bericht der Mindestlohnkommission an die Bundesregierung nach § 9 Abs. 4 Mindestlohngesetz*, Berlin.
- Neumark, D. (2008), *Minimum Wages*. Cambridge.
- Pusch, T., Rehm, M. (2017), *Mindestlohn, Arbeitsqualität und Arbeitszufriedenheit*, *WSI-Mitteilungen*, 70(7): 491-498.
- Sabia, J.J., Burkhauser, R.V., Hansen, B. (2012), *Are the Effects of Minimum Wage Increases Always Small? New Evidence from a Case Study of New York State*, *Industrial and Labor Relations Review*, 65(2): 350-376.
- Sauer, S., Wojciechowski, P. (2016), *Wie reagierten die deutschen Firmen auf die Einführung des Mindestlohns? Befragungsergebnisse aus dem ifo Konjunkturtest*, *Ifo Schnelldienst*, 69 (7): 62-64.
- Simon, K., Kaestner, R. (2004), *Do Minimum-Wage Hikes Reduce Non-wage Job Attributes? Evidence on Fringe Benefits and Working Conditions*, *Industrial and Labor Relations Review*, 58(1): 52-70.

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