

> The Minimum Wage in Germany

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Secretariat of the German Minimum Wage Commission

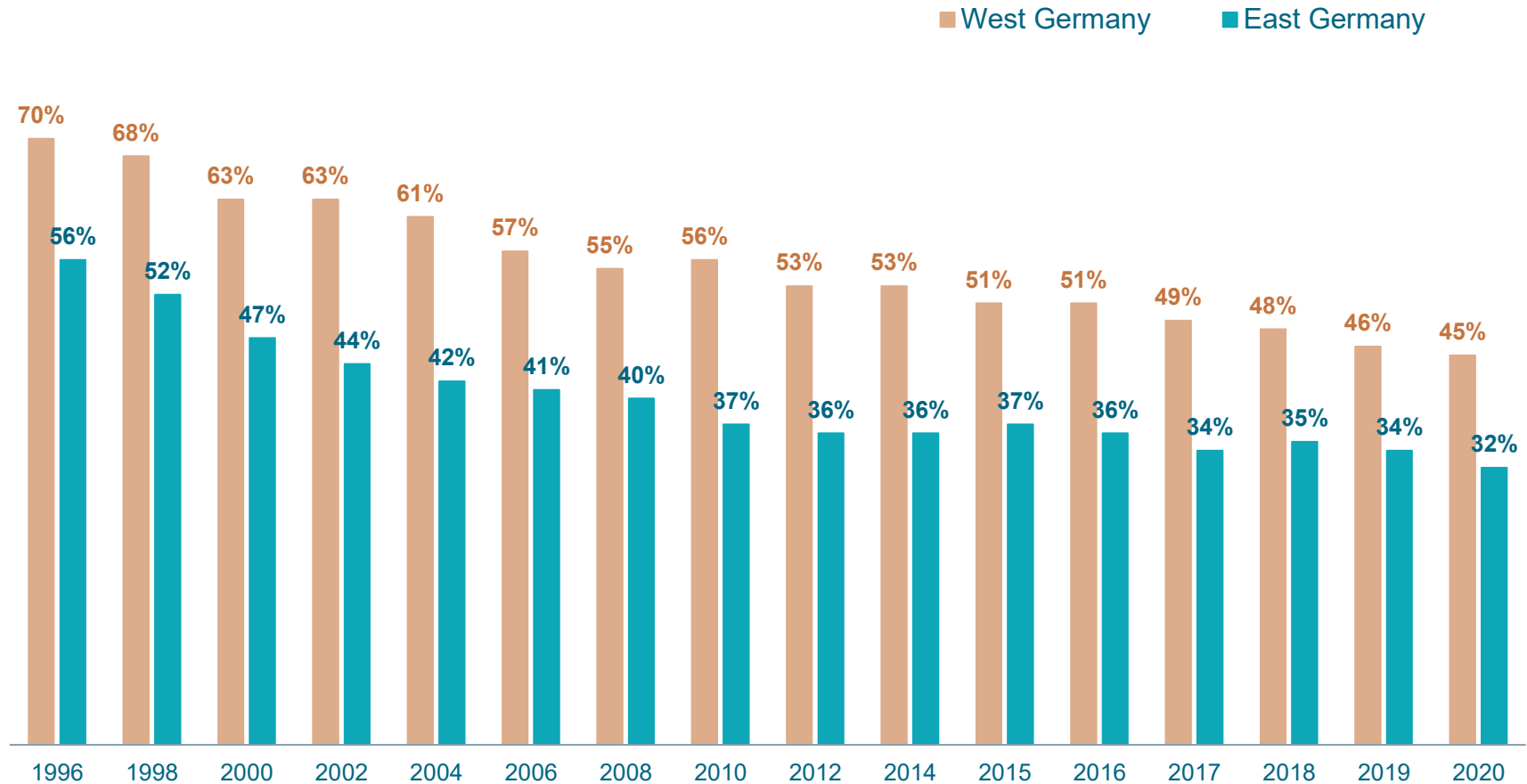
*International Workshop of the
German Minimum Wage Commission
7 October 2022, Berlin*

Outline

- I. The German Minimum Wage Commission and its mission**
- II. Effects of the German minimum wage**
 - i. Effects on wages and working time
 - ii. Effects on employment and unemployment
 - iii. Effects on businesses
- III. The minimum wage and the pandemic**
- IV. Increasing the minimum wage to 12 euros**

Background: Decline in the coverage of sectoral collective agreements since the 1990s

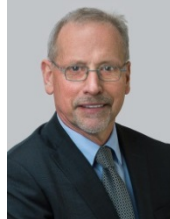
Share of employees working in companies covered by collective agreements



Source: Institut für Arbeits- und Berufsforschung (2021), IAB Establishment Panel 2020, WSI - Tarifarchiv

Members

Chairman



J. Zilius

**Employees'
representatives**



R. Feiger



S. Körzell



A. Kocsis

**Employers'
representatives**



B. Faust



S. Kampeter



K.-S. Schulte

**Scientific
advisory
members**



T. Krebs



L. Feld

Nomination/Appointme nts

Appointment based on a joint proposal by DGB and BDA

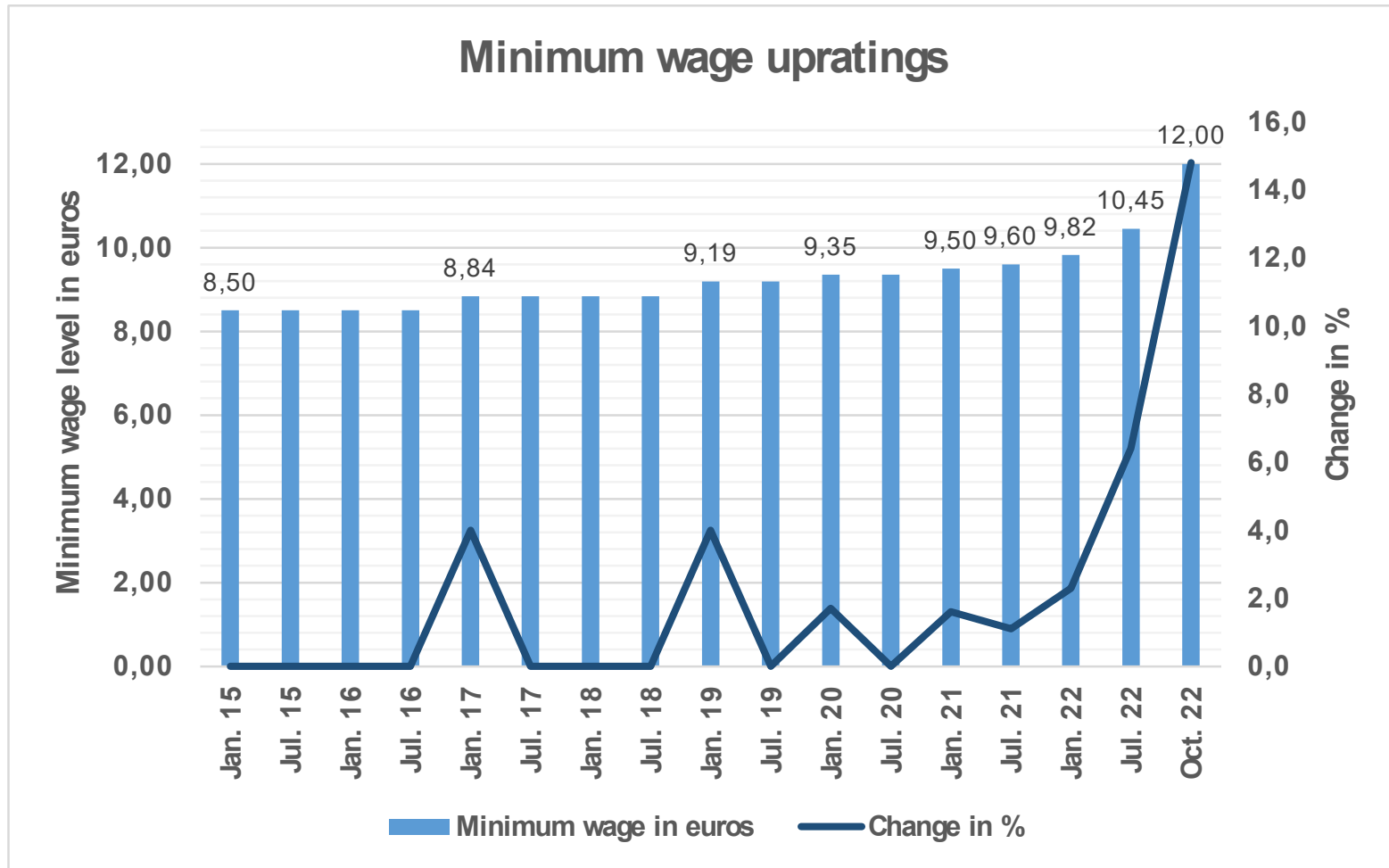
Nominated by the confederation of German Trade Unions (DGB)

Nominated by the German Federation of Employers (BDA)

Nominated each by DGB and BDA, respectively

- Introduction in 2015: Initial level of 8,50 euros set by government
 - 2016-2020: The Minimum Wage Commission decides every two years on the upratings for the following two-year period (based on criteria laid out in the Minimum Wage Act)
 - 2022: One-time government intervention to raise the mw to 12 euros in October 2022
 - From 2023 onwards: The Minimum Wage Commission will decide again every two years on the upratings for the following two-year period
- Applies to all employees, except
 - Under 18 year olds
 - Long-term unemployed in their first 6 months of a new job
 - Does not apply to
 - Apprentices
 - Some types of internships
 - Voluntary service

➤ Progression of the German Minimum Wage





- Three Commission reports published yet (2016, 2018, 2020)
- Next Commission report in June 2023
- More than 30 research projects commissioned (annual research budget: 750.000 Euros)
- Evaluation criteria: (1) worker welfare, (2) employment stability and (3) functioning and fair competition

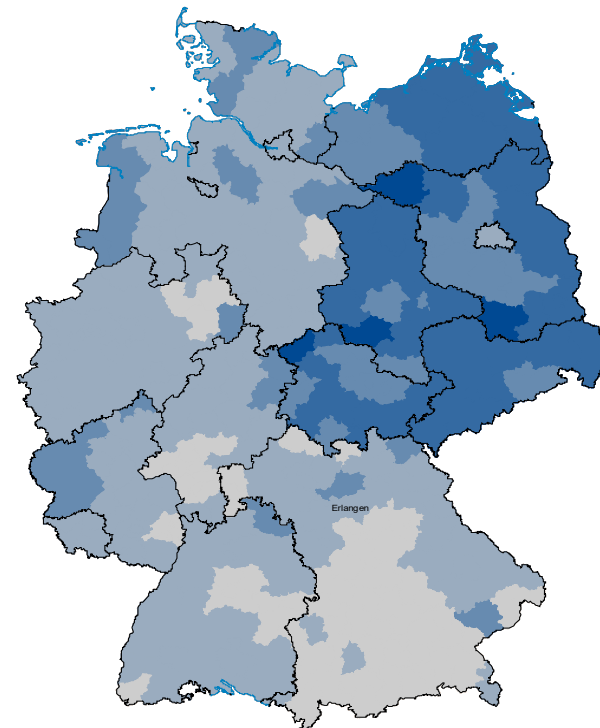
> Incidence and distribution of jobs paid below € 8.50 in 2014 (before introduction of the MW)

By sector (% of jobs below 8.50 €)



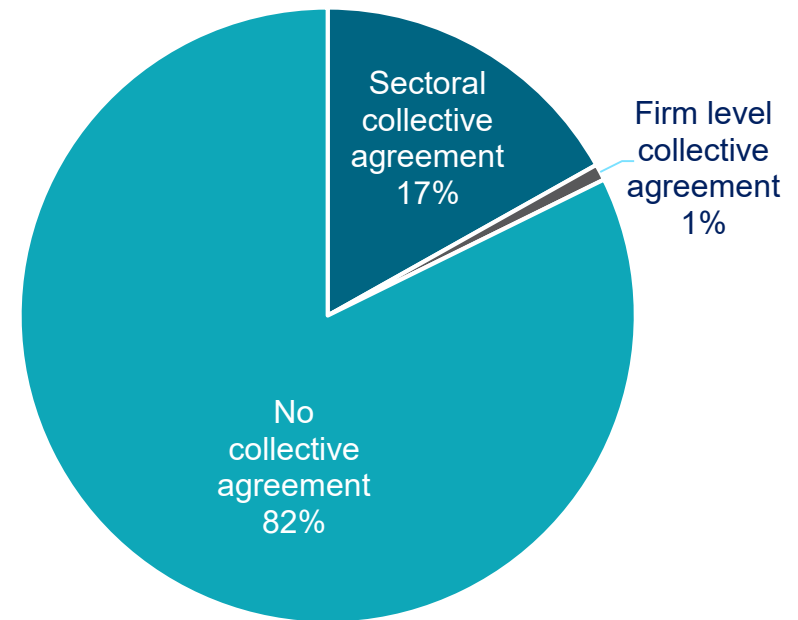
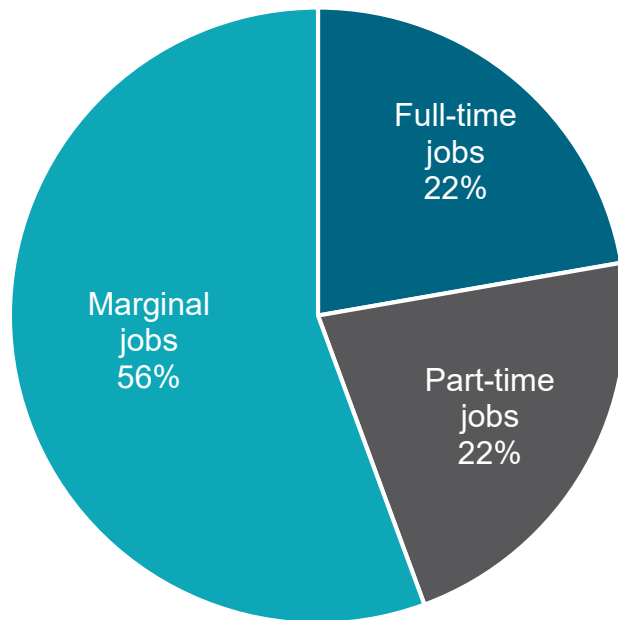
By region

Germany	11.3 %
West	9.3 %
East	20.7 %



Source: VSE 2014, own calculations.

› Composition of jobs below 8.50€ in 2014



Source: VSE 2014, own calculations.

Descriptive time series analyses with survey and administrative data

- Surveys of employees (German Socio-Economic Panel, GSOEP)
- Survey of employers (Structure of Earnings Survey by Federal Statistical Office and IAB Establishment Panel by the Institute for Employment Research of the Federal Employment Agency)
- Administrative employment data (by the Federal Employment Agency)

Causal analyses using binary difference-in-differences estimations on the level of:

- Individuals, using panel data (GSOEP)
- Companies, using panel data (e.g. IAB Establishment Panel)



Treatment group vs. control group

Causal analyses using continuous difference-in-differences estimations on the level of:

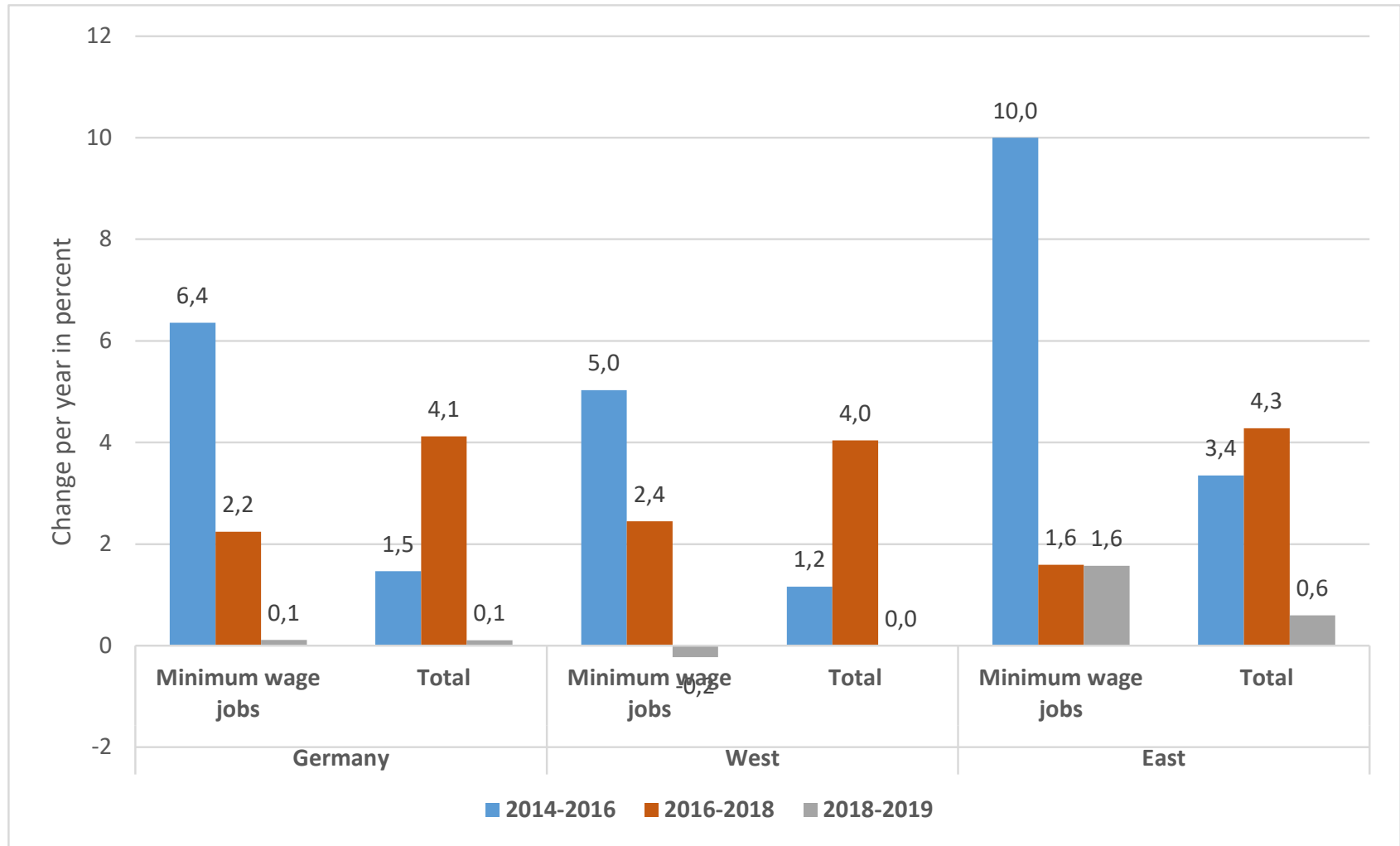
- Regions, using cross-sectional (for bite) and administrative data (for outcome variables)



Degree of treatment

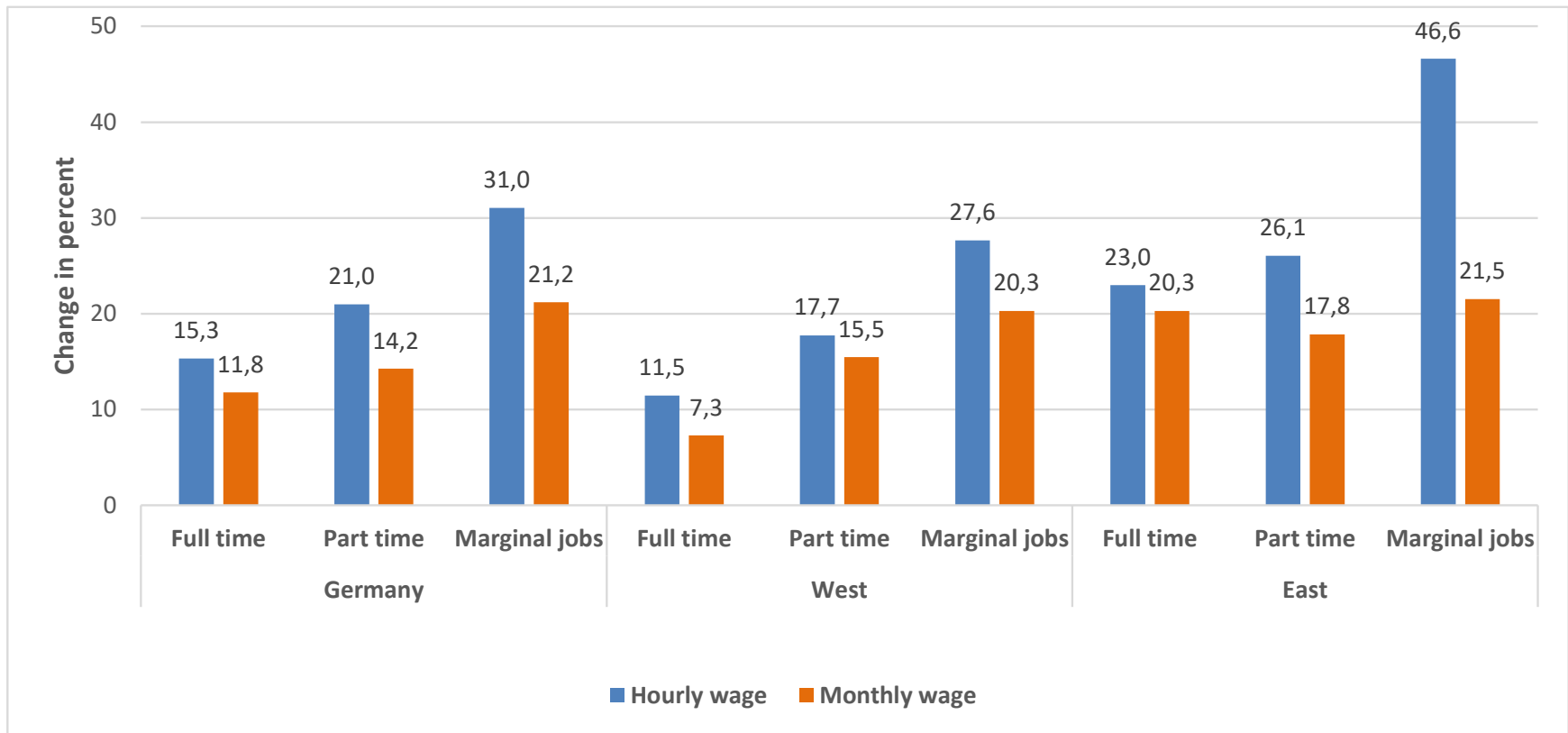
Minimum wage effects on wages and working time

› Change of hourly wages 2014 to 2019



Source: VSE 2014 and 2018, VE 2019, own calculations.

Overall change in hourly and monthly wages in minimum wage jobs 2014 - 2019



Source: VSE 2014, VE 2019, own calculations.

› Causal effect of the minimum wage on wages

		Hourly wages			Monthly wages		
Measurement	Year / Data	GSOEP contractual	GSOEP actual	IEB	GSOEP	IEB	IAB BP
Introduction of mw	2015	4%	Non significant	6%	Non significant	6%	4-6%
	2016	5-7%	Non significant	-	Non significant	-	
	2017	6-8%	Non significant	-	7%	-	-
	2018	5%	4%	-	Non significant	-	-
	2019	9%	9%	-	Non significant	-	-
Increase 2017	2017	Non significant	Non significant	-	Non significant	-	Non significant
	2018	Non significant	Non significant	-	Non significant	-	1,8%
	2019	Non significant	Non significant	-	Non significant	-	-
Increase 2019	2019	Non significant	Non significant	-	Non significant	-	Non significant

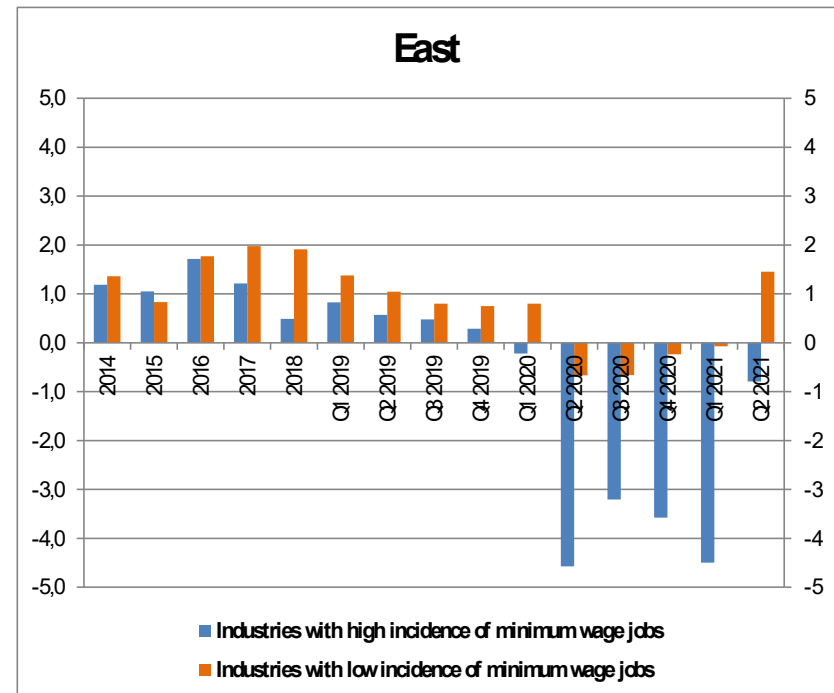
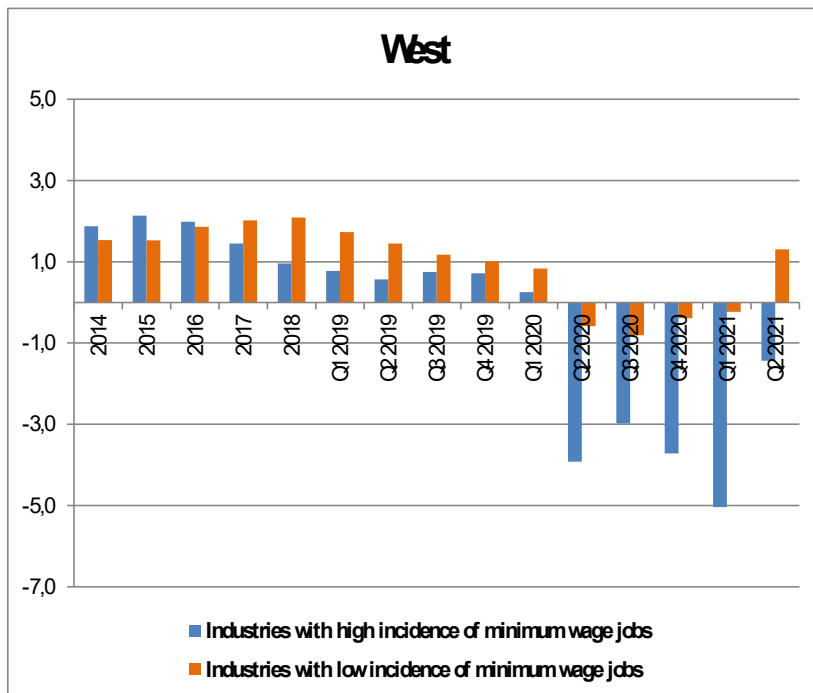
Source: Bachmann et al. (2020, 2022), Burauel et al. (2018), Ahlfeldt et al. (2018), own compilation.

> Causal effect on working time of minimum wage jobs

Measurement	Year / Data	Contractual hours (GSOEP)	Actual hours (GSOEP)
Introduction of mw	2015	-5% or 1.7 hours/week (Bonin et al. 2018)	Non significant (Bonin et al. 2018)
	2016	Non significant (Bachmann et al. 2020; Bonin et al. 2018)	-12 minutes/week (Bachmann et al. 2020)
	2017	Non significant (Bachmann et al. 2020)	-18 minutes/week (Bachmann et al. 2020)
	2018	-	-15 minutes/week (Bachmann et al. 2022)
	2019	-	-15 minutes/week (Bachmann et al. 2022)
Increase 2017	2017	-14,4% (Bachmann et al. 2022)	-
	2018	-17,8% (Bachmann et al. 2022)	-
Increase 2019	2019	Non significant (Bachmann et al. 2022)	-

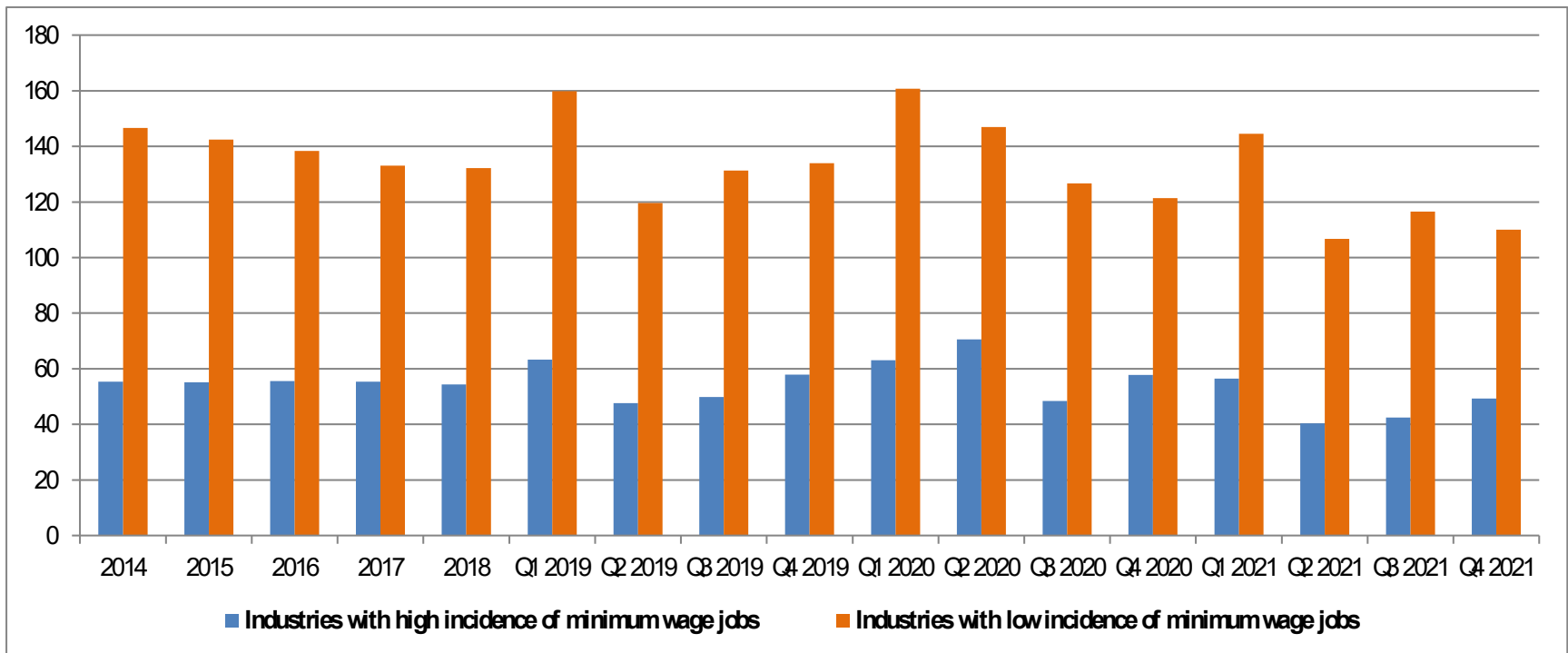
Minimum wage effects on employment and unemployment

Change in total employment in industries with high and low incidence of minimum wage jobs (yearly percent change 2014-2018; quarterly percent change 2019-2021)



Source: Statistics of the Federal Employment Agency, own calculations.

Inflow from regular employment into unemployment for industries with high and low incidence of minimum wage jobs (in thousands per year 2014-2018; in thousands per quarter 2019-2021)

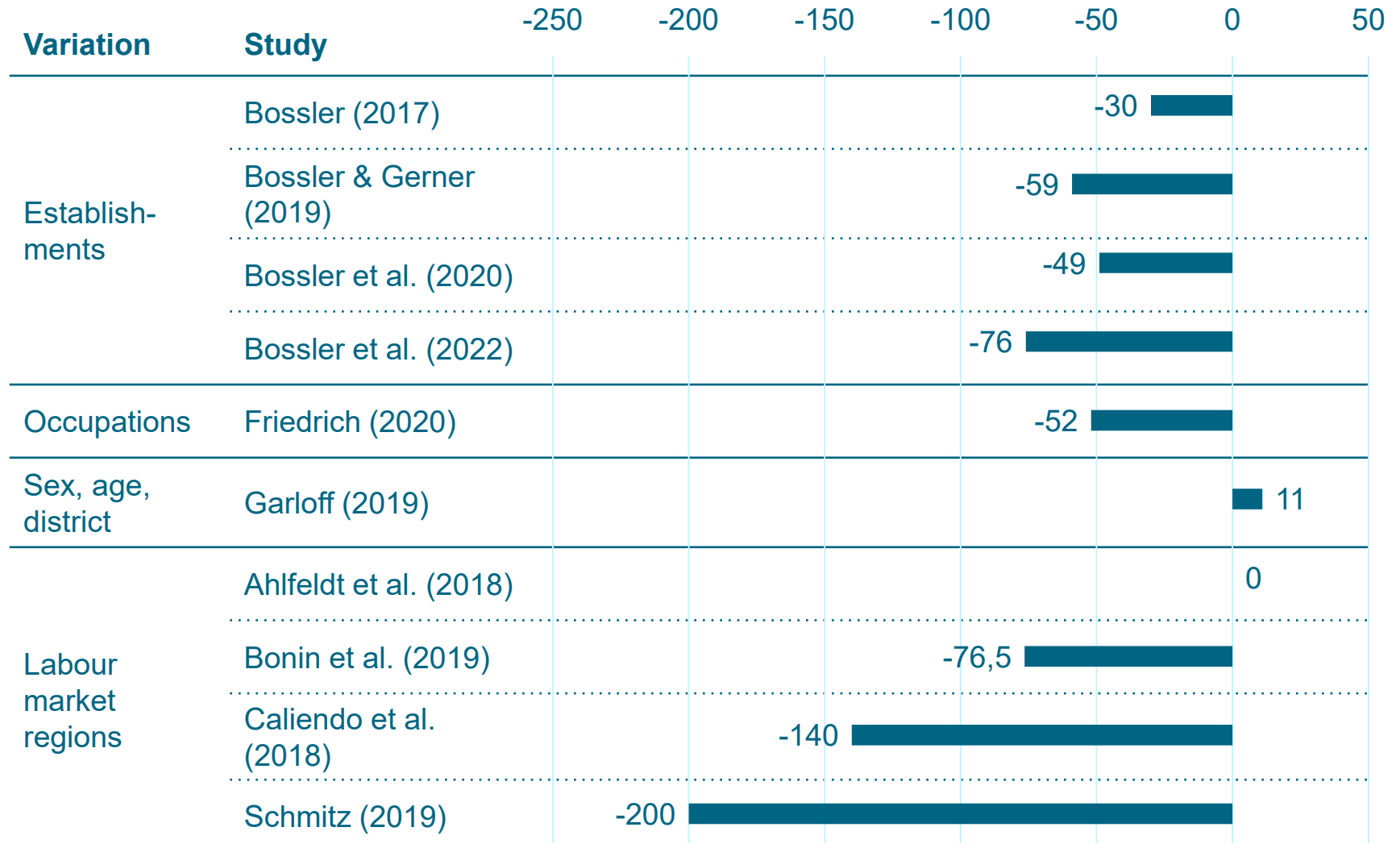


Source: Statistics of the Federal Employment Agency, own calculations.

> Causal effects of the minimum wage on employment

	Short term effects (2015/2016)			Intermediate effects (up to 2021)		
	Decline	Non significant	Increase	Decline	Non significant	Increase
Regular employment	Caliendo et al. (2018)	Bonin et al. (2018) Schmitz (2019)	Garloff (2019) Holtemöller / Pohle (2019) Stechert (2018)		Friedrich (2020) Pestel et al. (2020) Caliendo et al. (2022) Isphording et al. (2022)	
Marginal employment	Bonin et al. (2018) Caliendo et al. (2018) Garloff (2019) Holtemöller / Pohle (2019) Schmitz (2019) Stechert (2018)			Pestel et al. (2020) Caliendo et al. (2022) Isphording et al. (2022)	Friedrich (2020)	
Total employment (R+M)	Bonin et al. (2018) Bossler et al. (2018) Bossler / Gerner (2019) Caliendo et al. (2018)	Garloff (2019) Link (2019) Dustmann et al. (2022)	Ahlfeldt et al. (2018) Stechert (2018)	Bossler et al. (2020) Pestel et al. (2020) Caliendo et al. (2022) Isphording et al. (2022)	Bossler et al. (2022)	

› Employment effects in selected studies



Source: Börschlein/Bossler 2019, own compilation.

Minimum wage effects on businesses

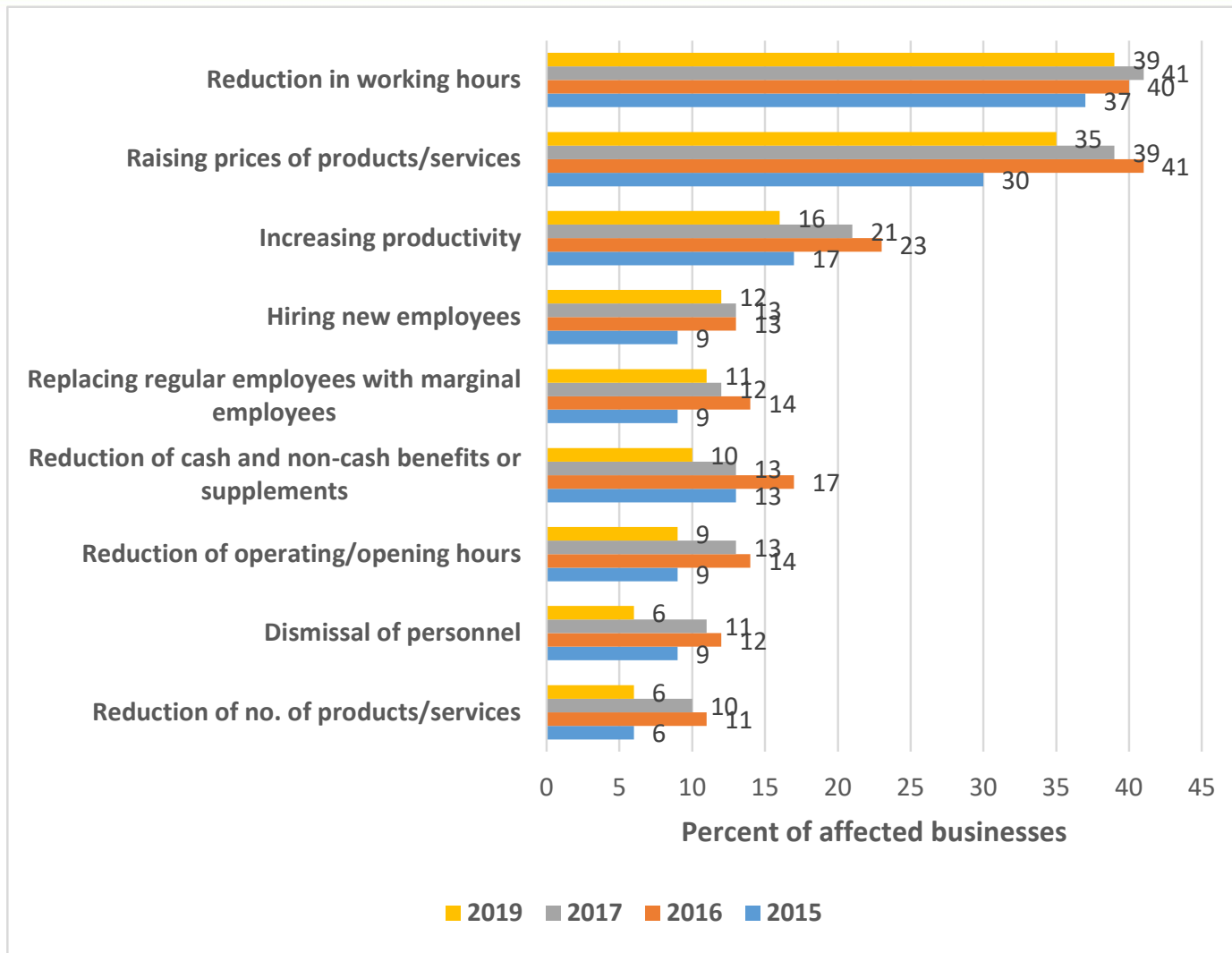
The overall impact of the minimum wage on the *overall* wage bill is limited:

Year	Minimum wage (euros)	Increase in gross total payroll	
		Million euros	Percent of total
2015	8.50	5,200	0.43
2017	8.84	856	0.07
2019	9.19	790	0.06
2020	9.35	360	0.02

Source: Statistisches Bundesamt (2016, 2017, 2019, 2020), Kann (2018)

However, based on data from the IAB Establishment panel, *businesses affected by the minimum wage* show a marked increase in the average wage bill per employee as a result of the minimum wage (Bossler et al. 2020, 2022).

› Adjustment channels of affected businesses



Source: VE 2015, 2016, 2017, 2019, Statistisches Bundesamt (2017a, 2017b, 2018)

Consumer price changes in minimum wage industries

		Year on year change in percent				
Industry	Price of good / service	2015	2017	2019	2020	2021
Taxi	Taxi ride	12.1	1.1	2.4	3.0	1.7
Publishing	Newspapers / magazines	5.9	4.8	5.0	4.5	4.4
Agriculture	Vegetables	5.3	0.3	6.3	-0.3	3.9
Agriculture	Fruit	5.0	2.1	-3.3	7.1	1.7
Personal services	Hair cut	3.4	2.1	3.0	4.1	4.0
Personal services	Dry cleaning	3.0	2.1	3.3	2.1	2.4
Gastronomy / Catering	Dining in / To go	2.9	2.2	2.6	2.3	2.6
<i>All industries</i>	<i>Sum total of consumer prices</i>	<i>0.3</i>	<i>1.5</i>	<i>1.4</i>	<i>0.5</i>	<i>3.1</i>

Source: Statistisches Bundesamt

Productivity:

- DiD analyses show no marked increase in labour productivity (=turnover per employee) for affected businesses (Bossler et al. 2018, 2020, 2022).
- Also no effect on marginal labour or capital productivity, nor in total factor productivity (Bossler et al. 2020, 2022)
- But increase of average productivity in micro businesses (De Monte et al. 2022)

Profits:

- DiD analyses show a marked reduction of profits (=turnover minus wage bill and intermediate input) for affected businesses in the order of 7 to 9 percent for years 2015 to 2019

- DiD analyses show no marked effect on number of businesses or on overall rates of market entry or exit (Bossler et al. 2022, De Monte et al. 2022, Dustmann et al. 2021).
- However, DiD analyses show an increased rate of exits for micro businesses with up to 4 employees ((Bossler et al. 2022, De Monte et al. 2022, Dustmann et al. 2021).
- Reallocation of employment from micro businesses to larger, more productive businesses (Dustmann et al. 2021)
- Structural shifts in composition of industries within labour market regions (De Monte et al. 2022)

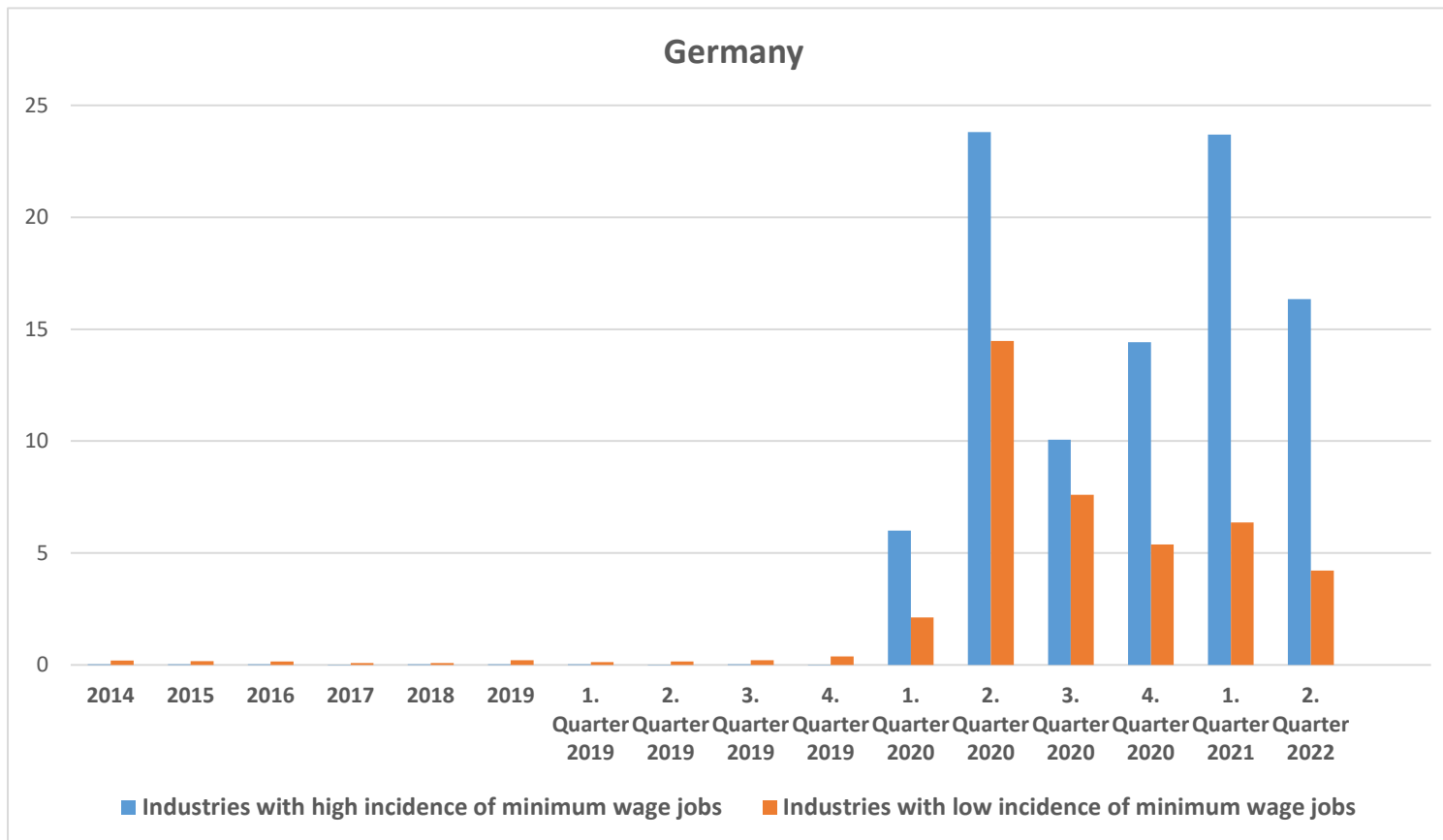
The introduction of the minimum wage...

- led to an increase in hourly wages in minimum wage jobs, but less so for monthly wages, due to working time reductions
- had no sizeable negative effect on overall employment, but reduced the number of marginal jobs
- had no effect on unemployment
- increased the wage bill per employee for affected businesses
- reduced profits and led to a higher rate of exits for micro businesses

Subsequent upratings of the minimum wage have continued to affect some outcomes, but to a lesser extent (e.g. wages, working time, marginal employment, profits).

Short-term work in minimum wage industries

Percentage of short-time workers in the total number of regular employees in industries with high and low incidence of minimum wage jobs (per year 2014-2018; per quarter 2019-2022)



Source: Statistics of the Federal Employment Agency, own calculations.

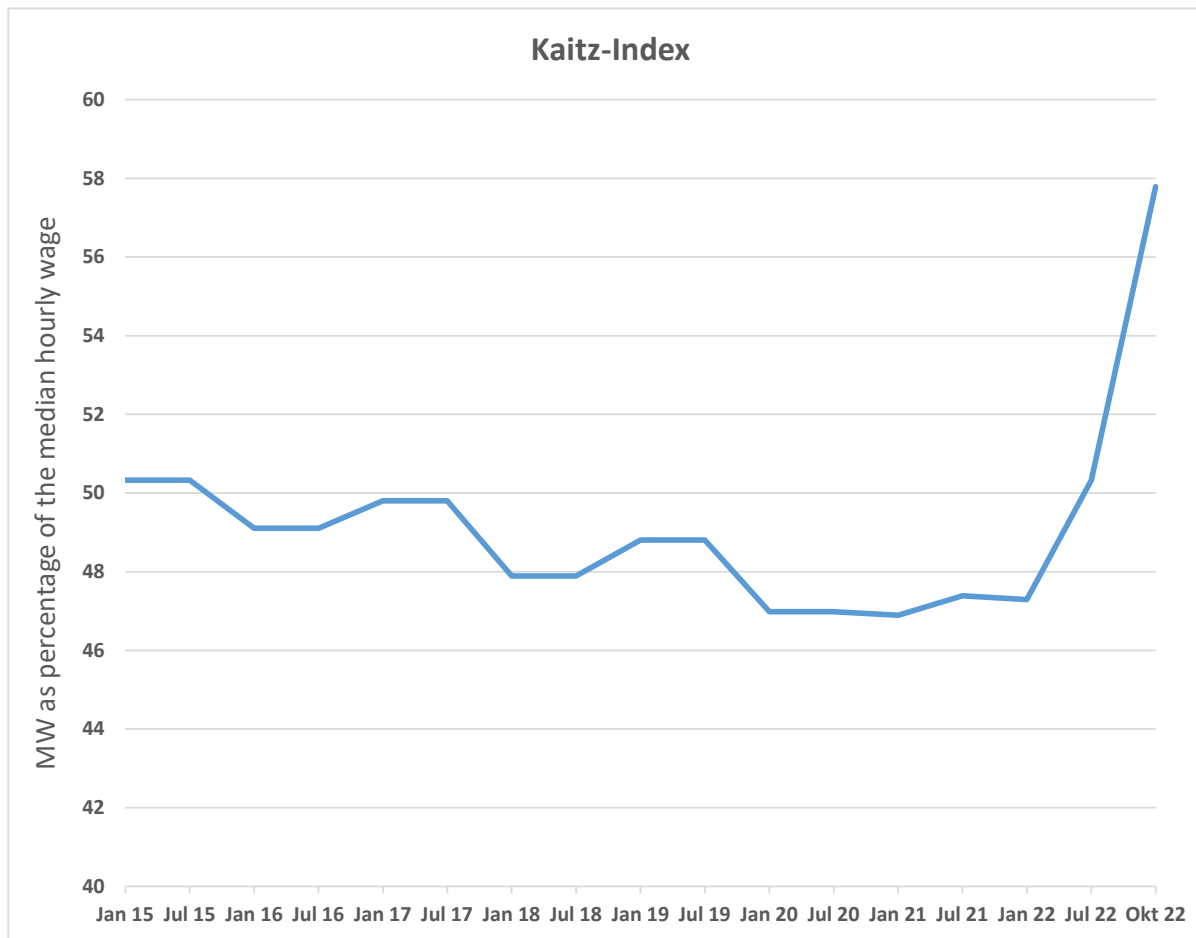
The bite of the increased minimum wage

› Estimated coverage of increase to 12 euros

Estimate	2021		2022	
	Million Jobs	Percent of all jobs	Million Jobs	Percent of all jobs
Secretariat on the basis of VE 2019	8,7	22	--	
Trade Union Congress (DGB) on the basis of VE 2021			6,2	16,4

Compare with ...		
... introduction of minimum wage in 2015	Million Jobs	Percent of all jobs
VSE 2014	3,9	11,3
... increase to 9,60 euros in 2021		
VE 2021	1,9	4,8

Source: VSE 2014, VE 2019, 2021; own calculations.



Notes: Calculation based on full-time employees only; development of wages are carried forward for years 2021 and 2022 on the basis of predictions by the Council of Economic Experts (Sachverständigenrat) from March 2022.

Source: GSOEP v.37; own calculation.

› Thank you very much!

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