



INSTITUTE FOR EMPLOYMENT  
RESEARCH

The Research Institute of the Federal Employment Agency

# Discussion of “The Impact of Minimum Wages: International Evidence” by Arindrajit Dube

Workshop “Minimum Wages: International Experiences and  
Evaluation” - Minimum Wage Commission

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Bernd Fitzenberger, IAB and FAU



## Recap of what we just heard ...

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- Rising minimum wages: Not just in Germany ...
- **Minimum wages and employment:** Does not the law of demand hold?  
Small negative/zero/small positive employment effects  
→ monopsonistic low wage labor markets
- Eventually there is a turning point, where law of demand will hold?  
→ Evidence from high minimum wages
- Local estimates of the own wage elasticities, well identified
- **Novel empirical approaches:** bunching approach, analyze series of minimum wage increases in local labor markets (series of event study estimates, diff-in-diff), address inherent heterogeneity of minimum wage effects, upper tail falsification
- Further outcomes: Reallocation to better jobs, wage inequality

## Maybe, what we did not hear ... (I)

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- Partial labor market analysis, short-run effects:

**Long-run effects stronger?**

How to extrapolate local estimates?

- Spill-over effects? High wages unaffected?

Minimum wage in roofing industry in East Germany: Bodo Aretz, Terry Gregory, and Melanie Arntz (2019). **“The Minimum Wage Affects Them All: Evidence on Employment Spillovers in the Roofing Sector”**, German Economic Review.

- Further outcomes: Hours worked, productivity effects (reallocation), prices (pass-through?, real wages), education and training (Acemoglu/Pischke, 1998)

## Maybe, what we did not hear ... (II)

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- Deunionization and minimum wage: industry level wage bargaining/ industry level minimum wages
- Policy endogeneity, interaction with collective bargaining
- Broader outcomes: Poverty, social cohesion ('Respect') , tool to counter labor shortages, productivity driver, stress at work (health), informal (illegal) work

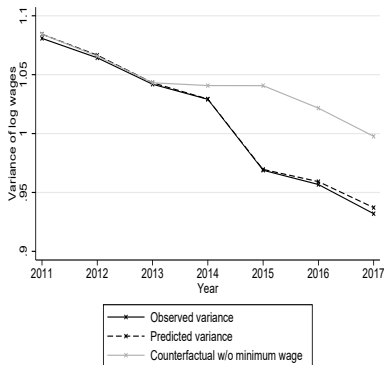
**Is the minimum wage effective  
if there are no negative employment effects?**

Address monopsonistic market power or guarantee a living income?

- Welfare analysis.

# More on Germany MW2015: Monthly Earnings Effects

Bossler/Schank (JOLE, online first 2022):



- Effects of MW2015 identified from DiD applied to RIF-regressions.
- During the 2010s the variance in monthly earnings would have decreased even in the absence of the minimum wage.  
→ Positive pre-trend in low-wage labor market since 2010
- Minimum wage affected inequality to decline by 6%.
  - Reduction of East-West wage differential.
  - No crowding out of social benefits.
- No significant regional-level employment effect.

## More ...: Effects on Hourly wages and Hours worked

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Biewen/Fitzenberger/Rümmele (IZA DP, 2022):

- Effects of MW2015 identified from DiD applied to distribution regressions (inspired by Dube, 2019)
- GSES (2014/2018) + IAB-DGUV (pre-trend analysis 2011-2014)
- DiD regression formulation for of wages/hours worked at threshold  $z$

$$1[y_{igt} \leq z] = \alpha_z + \gamma_z \times D_g + \lambda_z \times D_t \\ + \beta_z(Bite_g \times D_t) + X_{igt}\delta_z + (X_{igt} \times D_t)\eta_z + \varepsilon_{igt},$$

where  $1[y_{igt} \leq z]$  is a binary indicator variable of being below  $z$ .

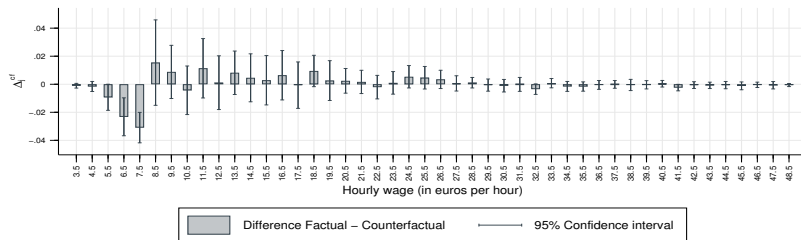
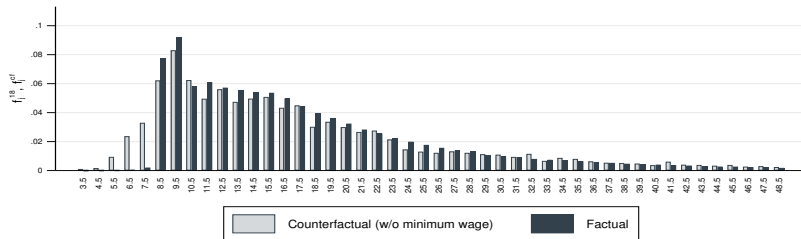
- Consider large set of thresholds, e.g. for hourly wages:  $\{3.49, 4.49, \dots, 49.49 \text{ €/hour}\}$  (similarly for hours bins)
- Regression used to construct counterfactual

## Results: Effects on Hourly wages and Hours worked

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- MW2015 almost eliminated hourly wages below it (very high compliance)
- **Spill-over** effects up to 20% above MW level
- Inequality of hourly wages decreased between 2014 and 2018 and MW2015 explains large part of decrease
- **Pre-trend analysis:** Low-wage growth already higher in most affected groups (strongest at €8.50 cutoff!!!), qualitative results robust
- No measureable impact on distribution of **working hours**

# Results: Effects on Hourly wages (bite measure: region)





# Minimum wages in Germany (I)

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- Institutions: Collective agreements posit schedule of minimum wages, monopoly power of unions
- Decline in coverage by collective agreements: Industry specific minimum wages (starting in construction in 1997, region specific) [Doerr and Fitzenberger, 2016, JLMR]
- National minimum wage of €8.50 per hour introduced in 2015
- Between 2015 and 2021 the minimum wage was increased in small steps: Minimum wage fell behind general wage growth (collective wage agreements) until 2021 (Börschlein/Bossler/Gürtzgen, IAB-Forum, 15 Feb 2021)
- Successive increases of minimum wage up to 2020 did not seem to result in employment losses. Share of establishments affected fell from 16% in 2015 to 7% in 2020 (Börschlein/Bossler/Gürtzgen., IAB-Forum, 19 Sept 2022)

## Minimum wages in Germany (II)

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- 2022: Hourly minimum wage increases by 25 %
  - Jan 2022: €9.60 → €9.82 (Minimum Wage Commission)
  - Jul 2022: €9.82 → €10.45 (Minimum Wage Commission)
  - Jul 2022: €10.45 → €12.00 (National legislation)
- Potential employment effects of MW increase 2022:
  - Ex-post evaluations of MW 2015: optimistic concerning MW increases.
  - Recent ex-ante evaluations from structural models mostly as well.  
[Discussion papers: Ahlfeldt et al. (2022); Blömer et al. (2018); Drechsel-Grau (2022)]
  - But: Models have a turning point beyond which employment and welfare decrease.
  - IAB survey among heads of labor agencies in the summer 2022 optimistic (Hutter/Weber, IAB-Forum, 13 Sept 2022)

# The bite increases ...

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- In 2021 one out of five jobs was paid below MW2022.  
(Börschlein/Bossler/Gürtzgen, IAB-Kurzbericht 12/2022)
- Shares by types (2021, projected): full-time (8.8%), part-time (23.5%), **minijobs (70.7%)**
- The timing of the increase: **high inflation** which will mitigate its effects and makes increase timely.