



# Workshop on Labour Economics 2025

Institute for Labour Law and Industrial Relations in the European Union | Trier University

## **Workshop on Labour Economics 2025**

April  $03^{rd} - 04^{th}$ , 2025

#### Venue:

Institute for Labour Law and Industrial Relations in the European Union (IAAEU) Trier University, Campus II Behringstraße 21 54296 Trier

# Welcome to the Institute for Labour Law and Industrial Relations in the European Union

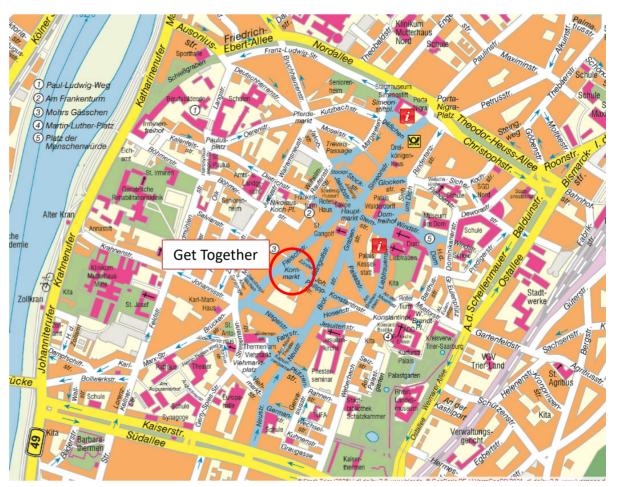
The Institute for Labour Law and Industrial Relations in the European Union (IAAEU) was established as a public foundation in 1983 and is funded by the state government of Rhineland-Palatinate. While being a public foundation, the IAAEU is also a research institute of Trier University and is situated in the heart of the Petrisberg Technology Park on Campus II. The IAAEU comprises two working groups of which one engages in research in the area of European labour law (Legal Team) and one engages in the theoretical and empirical analysis of personnel and labour economic issues (Economics Team). Since January 2012 Laszlo Goerke is one of the directors of the IAAEU and head of the Chair of Personnel Economics at Trier University. He is also a research fellow of the Institute of Labor Economics (IZA) and the CESifo Group Munich.

For detailed information have a look at our website: http://www.iaaeu.de/en

# April 2<sup>nd</sup>, 2025 from 19:30: Get Together

#### Venue:

Bitburger Wirtshaus Kornmarkt 1 – 3 54290 Trier



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### April 03<sup>rd</sup> – 04<sup>th</sup>, 2025 WLE 2025

#### Venue:

Trier University, Campus II (Building H)
Behringstraße 21
54296 Trier

#### **Meeting rooms:**

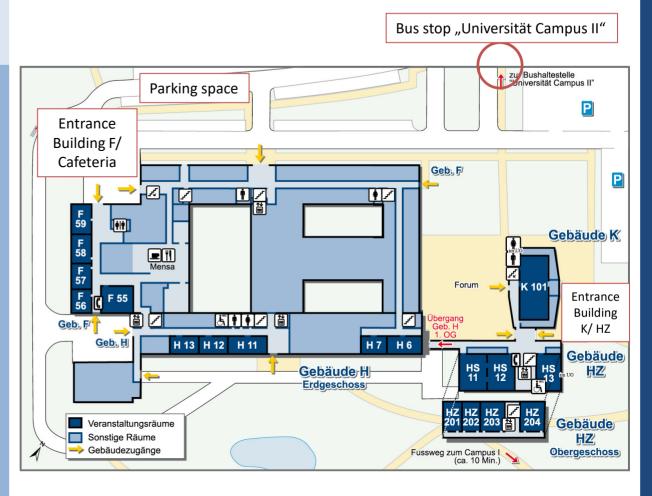
HZ 201: Parallel Sessions

HZ 202: Parallel Sessions

HZ 203: Parallel Sessions

K101: Coffee breaks, Registration,

Poster session & Keynote



### April 03<sup>rd</sup>, 2025 18:00 Social Programme

Social Event: 6pm

Guided Wine Cellar Tour with Wine

**Tasting** 

**Starting Point:** 

Bischöfliche Weingüter Trier

Gervasiusstraße 1

54290 Trier

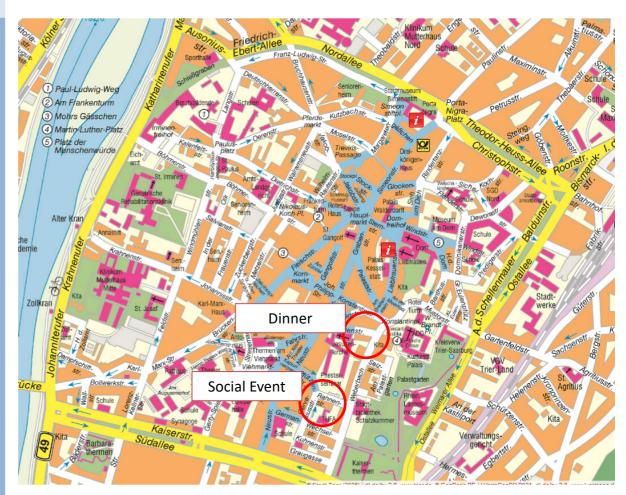
**Conference Dinner: 8pm** 

Weinwirtschaft Friedrich-Wilhelm

Weberbach 75

54290 Trier

(opposite the Basilica)



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# **Schedule – Workshop on Labour Economics 2025**

### Thursday, April 03<sup>rd</sup>, 2025

08:15 - 08:45	Registration (K101)
08:45 - 09:00	Welcome (K101)
09:00 - 10:10	Parallel Session I
10:10 - 10:40	Break (K101)
10:40 - 11:50	Parallel Session II
11:50 – 12:50	Lunch
12:50 – 14:35	Parallel Sessions III
14:35 – 15:30	Poster Session (K101)
15:30 – 16:30	Keynote (K101)
17:00	Bus transfer and social programme

# Schedule – Workshop on Labour Economics 2025

### Friday, April 04th, 2025

08:45 – 10:30	Parallel Session IV
10:30 – 10:50	Break (K101)
10:50 - 11:05	Group picture
11:05 – 12:15	Parallel Session V
12:15 – 13:15	Lunch
13:15 – 15:00	Parallel Session VI
15:00 – 15:15	Farewell (K101)

08:15 - 08:45 Registration, K101

08:45 – 09:00 Welcome and Opening, K101

09:00 - 10:10 PARALLEL SESSION I

Session I (a), HZ201: Industrial Relations (Chair: Patrick Nüß)

Patrick Nüß: Management opposition in times of crisis

Yue Huang: Industrial relations and working from home in Germany during the COVID-19 pandemic

Session I (b), HZ202: Job Conditions (Chair: Ali Sina Önder)

Ali Sina Önder: Jobs to die for: Redundancies and death rates in the UK's universities

Ludivine Martin: Consequences of digitalisation on teleworkers' work intensification, psychological

well-being and mental health

10:10 – 10:40 Coffee Break, K101

10:40 - 11:50 PARALLEL SESSION II

Session II (a), HZ201: Migration Economics (Chair: Felix Stips)

Felix Stips: Immigration and unemployment: Evidence from Germany after the EU eastern

enlargement

Kamal Kassam: Refugee exposure and native well-being

Discussant: Felix Stips

Session II (b), HZ202: Training (Chair: Katarina Zigova)

Katarina Zigova: Minimum wages and the structure of training

Elisabeth Artmann: The effects of online vs. in-person instruction in subsidized further training on

labour market outcomes

11:50 - 12:50 Lunch Break

12:50 – 14:35 PARALLEL SESSION III

Session III (a), HZ201: Labour (Chair: Fabio Berton)

Fabio Berton: Impact evaluation of Ireland's active labour market policies

Lucas van der Velde: Gender neutral hiring of junior scholars

Markus Wolf: Effects of a major and sudden benefit sanction reform on short-run labour market

outcomes of German welfare recipients

Session III (b), HZ202: Wages and Employment (Chair: Victor Saldarriaga)

Victor Saldarriaga: The distributional dynamics of wages over the business cycle

**David Marguerit:** Returning home: Employment and wage effects for cross-border workers

Discussant: Karin Edmark

Karin Edmark: Can workers switch it up? Organizational form, wages and well-being in the

preschool sector

14:35 – 15:30 Poster Session, K101

Sander Kraaij: Systemic discrimination in firing

Laura Baessler: The effect of the 2015 parental leave reform on labour supply

Ellen Tüllmann: Why talents leave: Exploring turnover drivers across career stages in the

automotive sector

**Alexander Moog**: Geographic labor mobility and statutory minimum wages

15:30 – 16:30 Keynote Address, K101

Nicolas Ziebarth: The economics of sick leave

17:00 Bus transfer and social programme

### Programme – Friday, April 04<sup>th</sup>

08:45 - 10:30 PARALLEL SESSION IV

Session IV (a), HZ201: Special Session I (Chair: Sladana Krgovic)

Sladana Krgovic: Can a minimum wage mitigate recession effects?

Camila Steffens: Labor market adjustments to E-commerce

Fengyu Wu: The health impacts of relaxing internal migration policies: Evidence from the 2014

Hukou reform in China

Session IV (b), HZ202: Gender and Houselhold Economics (Chair: Dipanwita Ghatak)

**Dipanwita Ghatak:** Child gender and parental participation in housework: Evidence from the UK

Discussant: Daniela Sonedda

Natalia Khorunzhina: Divorce and financial well-being

Wietse Leleu: Consideration sets on the marriage market

Discussant: Natalia Khorunzhina

10:30 – 10:50 Break, K101

**10:50 – 11:05 Group picture** 

### Programme – Friday, April 04<sup>th</sup>

#### 11:05 - 12:15 PARALLEL SESSION V

Session V (a), HZ201: Special Session II (Chair: Alexandra Sojka)

Alexandra Sojka: Causal effect of subsidized employment in labour market attachment outcomes:

Older workers case in population ageing economy

Discussant: Simona Lorena Comi

Simona Lorena Comi: The impact of apprenticeship on firm performance

Session V (b), HZ202: Pensions and Retirement (Chair: Raluca Elena Buia)

**Raluca Elena Buia:** The evolution of (post) pandemic labour market outcomes of older workers in Europe

Øystein M. Hernæs: Labor market effects of an increase in the pension claiming age – Evidence from Sweden

Session V (c), HZ203: Al and Automation (Chair: Cristina Almaraz-López)

**Cristina Almaraz-López:** Big data insights into AI penetration in online labour markets and innovation performance in EU member states

Discussant: Ali Sina Önder

Samuel Mäurer: Automation and demand for labor experimental evidence from white collar jobs

Discussant: Øystein M. Hernæs

### Programme – Friday, April 04<sup>th</sup>

12:15 - 13:15 Lunch Break

13:15 - 15:00 PARALLEL SESSION VI

Session VI (a), HZ201: Motherhood and the Labour Market (Chair: Saikat Ghosh)

Saikat Ghosh: Intertemporal labour market participation of mothers in Germany

Franziska Riepl: Human capital in the motherhood wage gap: What role does on-the-job training

play?

Discussant: Arnim Seidlitz

Arnim Seidlitz: Changing fertility and heterogeneous motherhood effects: Revisiting the effects of

a parental benefits reform

Session VI (b), HZ202: Education (Chair: Moritz Mendel)

Anna Pestova: Back to school when times are bad? The role of housing frictions

Daniela Sonedda: Levelling up? Targeted students of university grants based on wealth and skills

Moritz Mendel: Nonstandard education careers and inequality

15:00 – 15:15 Farewell, K101

Session I (a). HZ201: Industrial Relations

Patrick Nüß: Management opposition in times of crisis

I study how hiring discrimination against union supporters is affected by labor market conditions. While conventional economic theory predicts discrimination to decrease in tight labor markets, discrimination against union supporters could also increase due to unions' improved bargaining power and the threat of unionization. I sent 5,006 fictitious job applications revealing a union membership in the application. I show that discrimination is pro-cyclical in employment, increasing in an economic upturn and decreasing in an economic downturn. There is no effect of occupation-specific labor market tightness on discrimination. Cyclical discrimination is concentrated among firms without a collective agreement. These results suggest discrimination can be explained by unions' bargaining power and the threat of unionization. This indicates that the emerging labor shortage is unlikely to dampen managements' opposition to unionization.

Yue Huang: Industrial relations and working from home in Germany during the COVID-19 pandemic

We investigate the role of industrial relations in the extent of working from home (WFH) during the COVID-19 pandemic in Germany. Using regular and special COVID-19 survey data from the German Socio-Economic Panel (SOEP) for 2020-2022, we find that employees covered by a collective wage agreement are less likely to work from home and do so less frequently than uncovered individuals. Moreover, the incidence and frequency of WFH are positively associated with co-determination at the plant level, especially in 2021, i.e., the second year of the pandemic. The positive correlation is more pronounced for females, white-collar workers, and employees in WFH-feasible occupations. The results presented are relevant in showing which instruments effectively limit the increasing polarization in the labour market concerning the possibility of remote work.

Session I (b). HZ202: Job Conditions

Erin Hengel, Georgios Magkonis & Ali Sina Önder: Jobs to die for: Redundancies and death rates in the UK's universities

Redundancies affect not only those who lose their jobs but also those who survived it. We investigate direct effects of being in an HEI where staff was made redundant. Using HESA data on all of the UK universities' academic contracts between academic years 2012/13 and 2018/19, we find a strong association between the redundancy rate and the death rate of the academic staff. This association is robust to various specifications and alternative estimation methods. Our findings contribute to the debate on university redundancies by providing hard evidence on the true cost of redundancies.

Laetitia Hauret & Ludivine Martin: Consequences of digitalisation on teleworkers' work intensification, psychological well-being and mental health

This paper examines the impact of digitalisation on the work intensification, well-being and mental health of remote workers. Based on EWCTS 2021 data, supplemented by external digitalisation data, our paper shows that exposure to digital tools influences teleworkers' work intensification, mental health and well-being. However, the nature of this relationship varies depending on the specific tool in question and the digital environment to which the teleworker is exposed. The digital environment is important to consider because the impact of a digital tool can be offset by the teleworker's exposure to other digital tools. An environment marked by Advanced Digital Technologies (ADT) and Artificial Intelligence (AI) has helped limit work intensification, in contrast to an environment marked by the advent of Information and Communication Technologies (ICT) and computer software and database (DB), that only affected long working hours. While the ICT&DB environment did not impact mental health, the automation and new AI-ADT environment are associated with decreased emotional exhaustion. Both the ICT&DB environment and the ADT-AI environment adversely affect remote workers' well-being, with differences observed across gender and age groups.

Session II (a), HZ201: Migration Economics

Felix Stips: Immigration and unemployment: Evidence from Germany after the EU eastern enlargement

This paper evaluates the impact of immigration following the EU Eastern Enlargement on the German labor market. I assess the effects of immigration on natives' transitions into and out of unemployment, and starting wages, and job vacancies. The research design compares commuting zones before and after Germany opened its labor market and accounts for the endogeneity of migration across regions by using two variants of a shift-share instrument. I find that immigration reduced native unemployment, increased the job-finding rate, reduced the job-separation rate, and increased starting wages while having no discernible effect on vacancies. Delving into the mechanisms suggests that immigration spurred firm entry and productivity. The results support the common assumption of search-and-matching models that labor demand is highly elastic.

Kamal Kassam & Katharina Kolb: Refugee exposure and negative well-being

This paper examines the impact of local exposure to refugees on the subjective well-being of the native population in Germany. We combine county-level administrative records on recently arrived refugees with individual-level survey data from the German Socio-Economic Panel (SOEP) for the period 2014 to 2019. To identify causal effects, we employ an instrumental variable strategy based on the administrative allocation quota. Despite societal polarization over immigration and skepticism about refugee integration, we find no significant impact of local refugee inflows on the life satisfaction of natives. In addition, we explore individual- and county-level heterogeneity and potential mechanisms.

Session II (b). HZ202: Training

Katarina Zigova & Thomas Zwick: Minimum wages and structure of training

We study the effect of minimum wage adoptions by several Swiss cantons in the period 2018-2022 on the provision of training for the entire workforce. We apply a staggered diff-in-diff model to identify the dynamic policy effect. Drawing on two surveys with extensive details on employees' training, we find robust evidence of an increase in training incidence and intensity. The effect is driven by firm-financed formal training during working hours and is mainly general. Exploring heterogeneity, we show that the training effect is stronger for workers affected by the minimum wage and aimed at incumbent workers.

Elisabeth Artmann, Thomas Kruppe & Julia Lang: The effects of online vs. in-person instruction in subsidized further training on labour market outcomes

Online instruction in subsidized further training has rapidly expanded in the last few years, yet little is known about the relative effectiveness of online vs. face-to-face teaching of these courses. Combining survey and administrative data and applying an event-study approach, we analyse the effects of an exogenous and unanticipated switch from in-person to online instruction on unemployed course participants' labour market outcomes. For the full sample, we find a moderate, but somewhat imprecisely estimated positive effect of online vs. in-person teaching on participants' probability to be employed subject to social security contributions in the three years following training begin. This is primarily driven by an increase in fulltime work which also translates into higher quarterly earnings starting around six months after training begin. Heterogeneity analyses show that particularly men and higher educated individuals benefit from online instruction in the medium run, though the effects fade out over time. For women and individuals above the median age, the effects on employment and earnings increase over time and become significantly positive in the third year after training begin. Overall, our results suggest that online courses can be an effective means to provide subsidized further training.

Session III (a). HZ201: Labour

Fabio Berton, Hugh Cronin, Aoidean Delaney, Sara Flisi & Theodora Xenogiani: Impact evaluation of Ireland's active labour market policies

This report analyses the sequence of labour market support that individuals receive and evaluates two large public works programmes. It uses rich administrative data and finds positive labour market impacts of the Community Employment and Tús employment programmes. Building on the results of the analyses, the report makes recommendations on how Ireland can further adapt its active labour market policies (ALMPs) to better support its current and future jobseekers. This report on Ireland is the thirteenth country study published in a series of reports on policies to connect people with jobs, and is part of a joint project with the European Commission to strengthen countries' capacity to evaluate ALMPs. The report is written jointly by the OECD, the Department of Social Protection of Ireland and the Joint Research Centre of the European Commission. (p. 218)

Joanna Tyrowicz, Lucas van der Velde & Magdalena Smyk: Gender neutral hiring of junior scholars

We examine the role for external experts in providing unbiased evaluations of candidates in the context of gender. Affirmative action policies can promote the advancement of minority candidates, but the empirical results have been inconclusive on whether they are effective in eliminating bias. Our experimental design was structured to detect bias: we ask senior academics to assess the quality of job applications to junior positions, and to recommend which candidates should be invited for interviews. We study the role of the strong commitment to ensuring equal opportunity in hiring. Additionally, we vary the gender composition of the applications being evaluated and the quality of candidates. We find no evidence of bias in quality assessments, nor in recommendation to invite candidates for an interview, suggesting alignment between external experts and institutional objectives of unbiased hiring.

Gerard J. van den Berg, Arne Uhlendorff, Markus Wolf & Joachim Wolff: Effects of a major and sudden benefit sanction reform on short-run labour market outcomes of German welfare recipients

We analyse the effect of a major reform of benefit sanction rules in the German welfare system. Following a ruling of the Federal Constitutional Court in November 2019, the severity of some benefit sanctions was lowered and the number of new sanctions issued substantially and suddenly dropped. We analyse the effects of this natural experiment on different short-run labour market outcomes of welfare recipients before the onset of the Covid pandemic in March 2020. We use administrative data and analyse average treatment effects conditional on survival up to the reform date. First and preliminary findings suggest a negative effect of the reform on the short-run conditional employment transition probability of welfare recipients.

Session III (b), HZ202: Wages and Employment

Victor Saldarriaga: The distributional dynamics of wages over the business cycle

Examining cyclical variations in the wage distribution of the U.S. from 1980-2019, I document two novel facts. In recessions, the wage distribution: (i) becomes more positively skewed, and (ii) shrinks at the bottom and widens at the top. These facts indicate that a higher fraction of overall dispersion concentrates at top segments of the cross-sectional distribution of wages. I build a bargaining model of random search that incorporates two-sided heterogeneity, aggregate uncertainty, on-the-job search, and targeted recruiting by firms to explore the mechanisms underlying these stylized facts. In recessions, matches require higher skills from workers to be worth forming, so firms target their vacancies towards high-skill workers. Job offers then fall upon the high-skilled, improving their bargaining position and preventing wages at the top of the distribution from falling sharply, contrary to what occurs among the less-skilled. Estimating the model by indirect inference on data from the U.S. from 1951- 2019, I show that it can reproduce key features of the labor market and generate a varying distribution of wages consistent with the cyclical patterns observed in the data. I further assess a range of policy interventions and find that, while certain policies, such as increased unemployment benefits, can fix productive inefficiencies generated by the private behavior of firms, they are less effective in reducing wage inequality in economic downturns.

Andrea Albanese & David Marquerit: Returning home: Employment and wage effects for cross-border workers

Cross-border employment is a cornerstone of the European Union's integration policy. In this paper, we identify the predictors of becoming a cross-border worker and analyze its impact on employment and wages for workers who return to employment in their home country. Our analysis focuses on flows from Belgium to Luxembourg, the primary destination for cross-border workers within the EU, using administrative data from Belgian Social Security registers. Using Random Forest and LASSO models, we identify key predictors of transitioning to a cross-border job within one year. These include recent employment experience across the border, unemployment status, and proximity to Luxembourg. To estimate the causal effects of returning to work in the home country, we employ dynamic treatment effects using double machine learning. Our findings indicate that short cross-border work experience negatively affects long-term employment prospects but positively influences wages in the long run. Conversely, long cross-border work experience has no significant effect on employment but yields a positive impact on wages.

Session III (b), HZ202: Wages and Employment

Karin Edmark & Lovisa Persson: Can workers switch it up? Organizational form, wages and well-being in the preschool sector

This study adds a new angle to the literature on wages and well-being of workers in a predominantly female sector where both worker wages and health outcomes are generally low – the preschool sector – by analysing the role of for-profit and non-profit private organizations as alternatives to the dominant public employer. Using detailed linked worker-workplace data on the Swedish preschool sector, in combination with data on full-time equivalent wages, sick-leave spells, and mental health related prescription drugs, we find that both the non-profit and the for-profit sectors tend to hire workers that are on average cheaper and more healthy (younger and more often male), but also that their wage distributions differ significantly compared to the municipal sector. First, wages are, conditional on worker characteristics, on average higher in the non-profit sector but lower in the for-profits. There is no evidence of that these wage differences are compensated for by the work environment – on the contrary the results if anything suggests a zero or positive correlation with the wage level. We furthermore find evidence of a more compressed wage distribution, with respect to workers' formal qualifications, in the non-profits, and a more disperse distribution in the for-profit preschools. Our results finally suggest that the option to switch between employers provides an option to increase worker wages, but that this is limited by the lower average wage levels in the for-profit sector.

#### Poster Session, K101 (1)

Jan Kabátek, Sacha Kapoor, Sander Kragii & Dinand Webbink: Systemic discrimination in firing

Do firms discriminate against women and ethnic minorities in firing decisions? Why? We investigate these questions using administrative data from the Netherlands and discontinuous increases in minimum wages at the birthdays of youth workers. Age-wage increases are orthogonal, therefore, to other worker characteristics that may be relevant for firing decisions, including their ethnicity, gender, and productivity. We leverage the orthogonality of these wage increases to estimate the propensity of firms to fire workers of different genders and migration backgrounds. We identify the distributions of these propensities across large firms. We find that the market is less likely to fire workers with a migration background for wage increases around the birthday compared to natives, and more likely to fire female workers than male workers for the same increases. The firing gap between migrant and native workers is driven by male and not female workers. We consider various mechanisms that can explain our results, including heterogeneous hiring standards across ethnic groups, learning, discriminatory preferences of managers and coworkers, and costly coordination among decision-makers. Our approach lets regulators identify extreme discriminators in the market and enables firms themselves to identify extreme discriminators within the firm using observational data.

Laura Baessler: The effect of the 2015 German parental leave reform on labor supply

The 2015 parental benefit reform aims to reduce the gender time gap associated with parenthood by encouraging mothers to return to work earlier after childbirth and promoting greater involvement of fathers in family care responsibilities. This study is the first to provide a causal analysis of the reform's impact on mothers' and fathers' labor market outcomes. Applying a combination of a regression discontinuity design and a difference-in-differences approach, I find that the reform overall increased mothers' weekly working hours by 0.65 hours during the first year after childbirth. This increase primarily reflects changes at the intensive margin rather than the extensive margin. In the medium and long term, only highly educated parents exhibit significant effects: highly educated mothers show increased working hours and higher employment rates, while highly educated fathers reduce their working hours. These findings suggest that the reform's impact on gender equality in the division of paid and unpaid work is limited to specific subgroups.

#### Poster Session, K101 (3)

Ellen Tüllmann: Why talents leave: Exploring turnover drivers across career stages in the automotive sector

This study examines how key HR practices and factors – salary increases, relative performance ratings, granting leadership responsibility, and quality of supervision – influence voluntary employee turnover across three established career stages categorized by tenure: trial, stabilization, and maintenance. By analyzing career stage differences, this study offers a nuanced understanding of the dynamics driving turnover in (multinational) corporations. Utilizing a panel dataset (N=17,900, 2021-2022) from an automotive company operating across multiple countries, the findings reveal that the drivers of turnover vary depending on the employee's career stage. During the trial stage (0-2 years of tenure), an underperforming supervisor increases the turnover of the employees. During the stabilization stage (2-10 years of tenure), several factors decrease turnover: being in a leadership position, having an above-average performance evaluation, or an outperforming supervisor. Interestingly, during the maintenance stage (more than 10 years of tenure), a leadership position increases turnover. Only salary increases have the same negative effect across all career stages. These findings suggest the improbability of a one-size-fits-all HR strategy, highlighting the necessity for tailored interventions aligned with employees' career stages.

Alexander Moog: Geographic labor mobility and statutory minimum wages

I exploit the German statutory minimum wage introduction in 2015 to estimate its effects on geographical labor mobility using a 2% sample of administrative data. I find an increase in out-migration due to the minimum wage of low-skilled workers with migrant background from counties where a high-share of workers is subject to the minimum wage to urban labor market regions. The increase in out-migration is mainly attributable to optimal workplace reallocation of respective workers to better quality establishments. In contrast, native low-skilled workers do also relocate to better quality establishments, however, while not moving. The difference in reallocation behavior shows that migrants react stronger to changing local labor market conditions. Therefore, the results emphasize that statutory minimum wages lead to changes in the socio-demographic structure of local labor markets and a possible concentration of low-skilled workers with migrant background in urban labor market regions.

Session IV (a), HZ201: Special Session I

Sladana Krgovic: Can a minimum wage mitigate recession effects?

This paper explores the role of a minimum wage in counteracting a labor force participation decline and in mitigating a consumer demand contraction during a downturn. Following an economic downturn, a large and persistent contraction in consumption is associated to a rise in income inequality. The significant rise in inequality in the bottom half of the male labor earnings distribution in the U.S. is correlated with a declining labor force participation rate. I provide empirical evidence that the increase in the federal minimum wage in the U.S. during the Great Recession had a positive and substantial impact on the labor force participation of prime-aged men. I also show that the minimum wage increase helped raise consumer demand. To assess the general equilibrium effects of raising the minimum wage in a recession, I build a theoretical model featuring heterogeneous agents, search frictions and nominal rigidities. The model shows that the minimum wage can be an effective stabilizing policy during downturns, mitigating the exit from the labor force and substantially reducing the volatility of both employment and aggregate consumption.

Camila Steffens: Labor market adjustments to E-commerce

The economic importance of e-commerce has surged in the last decades, yet little is known about its labor market effects. In this paper, I provide insights into firms' and workers' adjustments to a rapid e-commerce expansion in the context of a developing economy. I use matched employer-employee data from Brazil within a Difference-in-Differences framework, leveraging state-border discontinuities of shipping costs across the country. I find that the e-commerce expansion led to at least a 9% decrease in employment in exposed retail sectors. A decomposition analysis reveals that this decline is primarily driven by a reduced inflow of workers into formal employment. Similarly, the number of retail establishments fell by 10%, largely due to fewer entries. The employment impact on incumbent workers was modest, but those who remained continuously employed in the exposed sector experienced an 8% wage loss. There is no evidence that displaced workers transitioned to formal jobs in other sectors or to informal employment within exposed retail.

Session IV (a), HZ201: Special Session I

Fengyu Wu, Julia Shu-Huah Wang, Jing You, Julien Teitler: The health impacts of relaxing internal migration policies: Evidence from the 2014 Hukou reform in China

This study examines the health impacts of internal migration policies, focusing on China's 2014 Hukou reform, which significantly influenced the mobility and acculturation of millions of people. Using a triple-difference framework, we assess the effects of city-level selection and integration policies on the physical and mental health outcomes of migrants. The analysis draws on data from the China Labor-Force Dynamics Survey (CLDS, 2012–2018) and incorporates municipality-level variations in internal migration policies. Our results indicate that more lenient selection and integration policies significantly improve migrants' health, with integration policies having a more pronounced impact than selection policies. Potential mechanisms driving these improvements include reduced overtime work, enhanced social capital, and greater integration with natives. We find that selection policies benefit both new and long-term migrants, whereas integration policies primarily improve outcomes for long-term migrants. Furthermore, integration policies have more substantial health effects on male, younger, low-skilled migrants, or those living in larger cities or with children or older adults. The health effects of selection policies are also stronger among migrants in larger cities.

Session IV (b), HZ202: Gender and Household Economics

Dipanwita Ghatak: Child gender and parental participation in housework: Evidence from the UK

This paper investigates the impact of digital technologies, in particular operational digital technologies (ODT), i.e., robotics, and information digital technologies (IDT), i.e., big data, Internet of Things, virtual reality, and cybersecurity, on the employment structure of firms in Italy using a comprehensive and representative firm survey conducted in 2015 and 2018. We develop a novel empirical strategy to identify the causal effects of the new digital technologies by constructing instrumental variables that combine the predetermined composition of employment at the firm level with the exogenous technological progress in operational and information digital technologies occurring at the global level, proxied by the technology-related patent stocks at the industry level. The results suggest that while ODT investment does not significantly change total employment, it does shift the composition of the workforce towards temporary contracts. Conversely, IDT investment has a positive impact on employment, apprenticeships leading to permanent contracts and IT-related training, highlighting the preference for a skilled and IT-competent workforce, which is also confirmed by firms' recruitment intentions. The results are robust to several sensitivity checks, in particular the use of machine learning techniques and sample selection. This study makes a methodological contribution by distinguishing between the (jointly estimated) effects of ODT and IDT and by highlighting the nuanced employment dynamics and the coexistence of displacement and reinstatement effects at the firm level in the context of technological evolution. Keywords: digital technologies, labour demand, firms.

#### Marcel Fischer & Natalia Khorunzhina: Divorce and financial well-being

Using a life-cycle model of household consumption and investment under family transitions, we investigate the long-run financial outcomes of divorces. We find divorce leads to a reduction in wealth, and the loss is larger for higher-educated women. Earlier fertility and a smaller parenthood penalty for women with only a high school diploma result in negative effects of divorces fading away by age 45, whereas for college-educated women, the same is achieved a decade later because of later fertility and a stronger parenthood penalty. Reduced economies of scale, switching to a single-person income, and losing wealth protection within marriage have the strongest impact on the divorced household economy.

Session IV (b), HZ202: Gender and Household Economics

Wietse Leleu: Consideration sets on the marriage market

This paper integrates the notion of consideration sets in the revealed preference framework of Cherchye, Demuynck, De Rock, and Vermeulen (2017). Using a revealed preference methodology based on the assumption of marriage stability within the collective household model, this framework can identify the intrahousehold decision structure, such as the sharing rule. Based on this methodology, a comparative study is conducted across various marriage market specifications, which include: (1) the conservative approach, where only someone's current partner is considered; (2) the Choo and Siow (2006) approach, where everyone considers everyone; (3) the Cherchye et al. (2017) approach, where potential partners are considered based solely on age; and (4) six other categories (BMI, values, wage, education, children, and religiosity). These categories are selected based on data availability and the assortative mating literature. The specifications are evaluated using goodness-of-fit indicators, the marriage market size, and the tightness of the sharing rule bounds to investigate the bias-precision trade-off.

Session V (a). HZ201: Special Session II

Alexandra Sojka: Causal effect of subsidized employment on labour market attachment outcomes: older workers case in population ageing economy

In this paper, I evaluate the effect of subsidized employment for people over the age of 50 in Poland's labor market. Data from the Polish employment register provide the foundation for a detailed analysis through propensity score matching and regression discontinuity design. The analysis focuses on the program's impact on the return to the unemployment register and the duration of assumed sustained employment. Results from PSM indicate that subsidies generally increase the likelihood of returning to the unemployment register by 12%, 16%, and 17% within two, three, and four years, respectively. The effect is particularly strong for females. Conversely, subsidies show a relative advantage over other active labor market policies. Regression discontinuity analysis reveals that extending subsidy protection from 18 to 36 months at age 60 does not effectively prolong employment duration. The study's outcomes cast doubt on the long-term benefits of the program and highlight the potential for policy refinement to address the specific needs of an aging workforce.

Francesco Bogazzi, Simona Comi, Silvia Duranti, Valentina Patacchini & Laura Resmini: The impact of apprenticeships on firm performance

This paper examines the impact of hiring apprentices on firm productivity, focusing on labor productivity and Total Factor Productivity (TFP) and using a comprehensive administrative dataset from an Italian region (Tuscany). Employing robust econometric methodologies, including Difference-in-Differences (DID), event studies, and treatment cohort analyses, the study identifies significant and persistent positive effects of apprenticeships on firm performance. The findings reveal that apprenticeship adoption enhances productivity, particularly in larger firms and technologically intensive sectors, while also contributing to workforce expansion. Despite the potential for intergenerational substitution, with a reduction in the proportion of workers over 50, the overall impact on employment is positive, supporting the argument that apprenticeships act as a catalyst for generational turnover and long-term productivity growth. These results provide actionable insights for policymakers to refine apprenticeship incentives and ensure balanced labor market outcomes.

Session V (b). HZ202: Pensions and Retirement

Agar Brugiavini, Raluca Elena Buia & Irene Simonetti: The evolution of (post) pandemic labour market outcomes of older workers in Europe

The extremely tight restrictions aimed at limiting the spread of COVID-19 pandemic severely impacted the economic activity in all countries, leading to exceptional work disruptions and substantial (temporary) layoffs. Recent literature documents the existence of an age bias in the recruitment of new employees, which makes older workers a vulnerable category when experiencing work disruptions. Using data from the Survey on Health, Ageing and Retirement in Europe, we investigate to what extent having experienced work interruptions in the first wave of the pandemic might have affected the working careers of older workers. Our results indicate that having undergone work disruptions in 2020 is associated with a significantly higher probability of ending up as retirees or not employed in both 2021 and 2022. The effect is not homogenous among countries. While the estimate is not significant for Northern countries, it is significant for the other country clusters, the magnitude of the effect being larger in Central and Eastern European countries.

Johannes Hagen, Øystein M. Hernæs, Alireza Khoshghadam & Stefanie König: Labor market effects of an increase in the pension claiming age – Evidence from Sweden

We evaluate the impact of a policy reform in Sweden in 2020 that raised the early pension claiming age from 61 to 62. Employing administrative data from Sweden and a difference-indifferences approach, we analyze public pension claiming and labor market outcomes among age groups differentially impacted by the reform. We find that the reform on average lead to postponed claiming of both public and other pensions, prolonged working life until age 62 of around 1 percentage point, little change in disposable income and slight increases in uptake of sickness, unemployment and disability benefits. The labor supply effects are concentrated among individuals with a high predicted propensity to claim public pension early. For individuals in the lowest income quartile at age 60, we find reductions in disposable income at age 61 of 10%. Given the actuarially neutral character of the system, the short-term reduction in pension income will be recovered in the form of a higher yearly pension later.

Session V (c), HZ203: Al and Automation

Cristina Almaraz-López: Big data insights into AI penetration in online labour markets and innovation performance in EU member states

This research aims to analyse the possible correlations between the level of penetration of Artificial Intelligence (AI) in EU member states' labour markets and their innovation performance. We first construct a measure for AI penetration based on Big Data analysis of online job advertisements from each member state. Then, we aim to determine which country-wise attributes are most closely related to this metric and therefore could be more powerful to explain the differences in AI penetration. The attributes considered include indicators of the countries' Research and Innovation performance taken from the European Commission's European Innovation Scoreboard (EIS) (European Commission: Directorate-General for Research and Innovation, 2024), as well as contextual indicators also included in the EIS reports, and indicators relevant to innovation of the countries' online labour markets. We use a two-step methodology which employs novel machine learning techniques (Borsekova et al., 2024; Varian, 2014): first, we apply Lasso Regression to select the most relevant attributes, and we then use the selected indicators to construct a decision tree using the CART (Classification and Regression Trees) algorithm, which allows us to compare the different groups of countries based on their level of AI penetration. This comparison highlights commonalities and differences in the countries' characteristics. This, in turn, allows us to draw insights into the relationship between AI's penetration in the labour market and overall innovation performance which can be valuable for policymakers to foster the adoption of AI as a driver for innovation in Europe.

Eduard Brüll, Samuel Mäurer & Davud Rostam-Afschar: Automation and demand for labour. Experimental evidence from white collar jobs

Using a randomized survey experiment, we investigate how tax firms' automation expectations shape their decisions about labor plans. The prevalence of automation effects, however, is difficult to quantify since archival data is silent on the decision-making process. We address this problem by designing an information provision experiment, where respondents are informed about their occupation automatability with official estimates of automation rates. When informed about the own automation rates as of a tax advisor, firms indicate their expectations about future labor shares. The effect of automation of labor demand is believed to depend on a productivity effect and displacement effect, we empirically verify this effect, the effect of new tasks and change of tasks content of production of automation on labor demand for the auditor and tax advisor industry. Furthermore, we analyze the response behavior of the individuals to automation by evaluating whether they consider changing jobs and investment in digital education.

Session VI (a), HZ201: Motherhood and the Labour Market

Saikat Ghosh & Christian Aßmann: Intertemporal labour market participation of mothers in Germany

Even though women play a crucial role in a country's sustainable development, they are often under represented in most of the labour force. Germany is no exception where still a considerable number of women are either not working at all or only as marginal workers. Based on the linked data available from the National Educational Panel Study (NEPS) and Administrative Data of the Institute for Employment Research (ADIAB), this study examines the inter-temporal labour market decisions of women in Germany for a period of ten years (2012-2021). The main focus is on the relationship between women's labour market participation and their fertility decisions. Therefore, we adapted different indicators for labour market participation and deployed various dynamic model specifications to identify the source of variation in mothers' labour market participation in Germany. The findings show strong state dependency where women's previous labour market participation significantly positively affects the current labour market participation. Besides, there exists evidence of child penalty in women's labour market participation. Methodologically, the findings were robust across all econometric specifications and indicated towards the existence of unobserved heterogeneity in women's labour market decisions.

Session VI (a), HZ201: Motherhood and the Labour Market

Franziska Riepl: Human capital and the motherhood wage gap: What role does on-the-job training play?

Gender gaps in the labor market are a well-documented fact in the economic literature (e.g. Cortés and Pan. 2023; Waldfogel, 1998), and recent research associates most of the remaining gaps with motherhood (e.g Cortés and Pan. 2023; Goldin. 2024). One key explanation motherhood "penalties" in terms of wage and employment is that mothers' human capital depreciates during their absence from the labor market (Becker, 1964: Mincer and Polacheck, 1974) and that they continue to accumulate less human capital even after returning, for example because they only work parttime or in jobs with little potential for career development (Adda et al., 2017; Blau and Kahn, 2017). Human capital is often equated with work experience (e.g. Costa Dias et al., 2020), making it easily measurable and clearly relatable to labor market outcomes. However, using this approach, it remains unclear how exactly human capital is acquired at the workplace and whether there are heterogeneities across individuals and firms, which may interact with the dynamics underlying the motherhood wage gap. This project investigates the role of explicit learning activities, namely jobrelated training in the form of organized courses, for the motherhood wage gap. Focusing on a clearly quantifiable form of human capital accumulation allows me to explicitly study losses due to motherhood, both due to absence from the job and reduced training after returning to work. Using linked educational and labor market data from Germany, I document that training participation of women decreases after becoming mothers, in line with previous evidence from the sociological literature (Lim and dos Santos, 2024; Zoch, 2023). Around half of the training penalty can be explained by absences from the labor market, whereas individual labor market history and job characteristics play a smaller role. I show that mothers exhibit no substantial shifts into firms with lower training support, highlighting the role of the individual participation choice as well as intra-firm allocation decisions. Next, I confirm a substantial motherhood wage penalty which is largest in the years immediately following birth but persists for at least five years. I examine the role of training participation for this penalty by including controls for contemporaneous training participation. Despite the theoretical predictions stating the contrary, I find that adding training participation as an explanatory variable in this regression does not significantly alter the results. This indicates that (year-on-year) on-the-job training does not play a substantial role in explaining the motherhood wage gap. Alternative explanations for wage losses associated with motherhood, such as the role of implicit training and learning (e.g. learning from co-workers as in Jarosch et al. (2021)), but also of discrimination based on the observation of a long-term labor market absence (e.g. Ishizuka, 2021), therefore gain in relative importance. Additionally, the effects of training participation may go beyond immediate wage consequences and may manifest in terms of long-term wage and employment benefits – for example close to retirement, as proposed by Backhaus (2023) – nor non-monetary returns like job satisfaction (Kosteas, 2023), work-related worries (Ruhose et al., 2020) or voluntary engagement (Rüber et al., 2020).

Session VI (a), HZ201: Motherhood and the Labour Market

Bernd Fitzenberger & Arnim Seidlitz: Changing fertility and heterogeneous motherhood effects: Revisiting the effects of a parental benefits reform

Using a semiparametric event study approach with a control group, we estimate the effect of motherhood on labor market outcomes in Germany, the child penalty. We further investigate how the 2007 parental benefits reform changed the child penalty while accounting for fertility effects. A large novel data set linking data from two administrative sources provides information on all births. Our estimation approach accounts for motherhood being a staggered treatment. The reform has small positive medium-run effects employment outcomes. It changes the selection into fertility and shows heterogeneous effects. However, the reform did little to reduce the average child penalty.

Session VI (b), HZ202: Education

Anna Pestova & Alexander Popov: Back to school when times are bad? The role of housing frictions

College enrollment typically rises during recessions. This paper demonstrates that housing wealth destruction dampened this countercyclical effect in areas most affected by the U.S. housing bust of 2008-2011. By combining household data with a mortgage credit register and housing price data, we reveal that rising household leverage significantly reduced college enrollment among homeowners relative to renters during this period. Up to 2% of the local college-age population did not pursue college enrollment at the height of the bust due to these housing frictions. The negative impact of homeownership on college education persists for a decade, ultimately contributing to lower incomes among homeowners in the most affected areas...

Francesco Figari, Marcello Matranga, Maria Cristina Rossi, Daniela Sonedda & Gianluigi Vernasca: Levelling up? Targeted students of university grants based on wealth and skills

We investigate how students self-select into university grants based on their wealth and skills. Using a difference-in-differences estimator on educational and labour market outcomes, we analyse the mechanisms behind each treatment, namely the wealth and skill requirements. By isolating the wealth requirement, we find no clear evidence of liquidity constraints. Instead, we observe that students who would have performed well even without the grant are more likely to receive it. Those who are unable to meet the minimum university credit requirement tend to refrain from applying, anticipating that they may need to return the received grants. Furthermore, we uncover perverse disincentives stemming from the grant policy, with students prioritising the maintenance of the grant over improving their academic performance. This phenomenon is observed across both female and male students, although it appears to be more pronounced among females.

#### Moritz Mendel: Nonstandard educational careers and inequality

Individuals from low-income backgrounds perform worse than their higher income peers in school. If individuals from low-income backgrounds enter university, they are more likely to do so after dropping out of high school or finishing vocational training. I refer to trajectories that involve vocational training or high school dropout before entering university as alternative paths to university. This paper asks whether alternative paths to university promote social mobility. To reach this goal, I specify a dynamic model of education that follows individuals from low-income backgrounds during adolescence and early adulthood. The model shows that despite initial achievement gaps, many individuals from low-income backgrounds have high returns from finishing a bachelor's degree later. They face substantial dropout risk, however, when entering higher education. Alternative paths to university substantially increase university graduation rates and wages among individuals from low-income backgrounds. The main explanation for this result is that many individuals from low-income backgrounds face substantial uncertainty when deciding about their future education at sixteen. Imposing flexibility between different educational careers consequently improves outcomes significantly.

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## Notes

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