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DISCUSSION PAPER

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Entry Motivations Shape Preferences for Social Protection Among Platform Workers

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Abstract

We study platform workers' preferences for social protection – in the form of sick pay and paid annual leave – distinguishing between workers who entered platform work out of economic necessity (the "pushed") and those attracted by its flexibility and advantages (the "pulled"). Using a discrete-choice experiment administered to nearly 800 taxi, delivery, and cleaning platform workers in Germany, Italy, and Poland, we find an average willingness to pay at 3.7% of earnings for sick pay coverage and 4.6% for paid annual leave. Preferences, however, differ sharply by motivation: pushed workers are willing to forgo on average 5.3% of earnings for sick pay, and 5.6% for paid annual leave, while pulled workers' valuations are substantially lower (3.1% and 4.2%, respectively). This difference is most pronounced among workers without access to these benefits, suggesting that the absence of protections is particularly consequential for those who entered platform work under greater economic constraint. The findings indicate that the welfare impact of extending social protections to platform workers – as proposed by the EU Platform Work Directive – might depend on the share of necessity-driven workers in the platform workforce.

Keywords: platform work, willingness to pay, discrete choice experiment, social protection, job quality
JEL: J32, J28, J81

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1. Introduction

Digital platform work has expanded rapidly over the last decade, intensifying debates about employment classification, working conditions, and the appropriate scope of labour market regulation. Workers who provide on-demand, app-mediated services are frequently classified as independent contractors or engaged through highly non-standard arrangements (Urzi Brancati et al., 2020). While platform work is often a paradigmatic form of flexible earning – accessible “any time” and “on demand” – it also tends to come with inferior working conditions compared with standard employment, including weaker protections and greater income insecurity (de Groen et al., 2018; De Stefano, 2015; Wood et al., 2018).

This tension has become politically salient in Europe. After years of regulatory pressure and contested negotiations, in 2024, the EU adopted the directive on improving working conditions in platform work (2024/2831), which addresses concerns that platform workers often lack core labour standards such as sick pay, minimum wage, or paid annual leave (Forde et al., 2017; Muszyński et al., 2022). Much of the existing research has focused on whether reclassifying platform workers as employees can improve their access to adequate social protection (Sieker, 2022; De Becker et al., 2024; Antonucci, 2025). Yet, the flexibility offered by the gig economy (M. K. Chen et al., 2019) may attract people who value flexible work arrangements, even at the cost of lower security. A parallel can be found in the entrepreneurship literature, which distinguishes between necessity and opportunity entrepreneurs: those pushed into self-employment by limited alternatives and those drawn to it by perceived opportunities (Amit and Muller, 1995; Block and Wagner, 2010). Studying the extent of voluntary take-up of self-employment and independence provides a useful framework for understanding differences among the self-employed (Kautonen et al., 2010; Boeri et al., 2020). This raises the question of whether a similar heterogeneity exists among platform workers, and whether workers who enter platform work for different reasons also differ in working conditions, perception of benefits and risks, and in their preferences towards social protection.

In this paper, we answer this question through a tailored survey of taxi, cleaning, and delivery platform workers in Germany, Italy, and Poland. We distinguish between workers forced to work on platforms because of push factors such as lack of income or alternative job opportunities, and those attracted to platform work by flexibility and other opportunities. We use a discrete-choice experiment to elicit their preferences for two amenities typically provided in employment relationships thanks to social protection regulations, namely sick pay and paid annual leave. Using the willingness-to-pay (WTP) estimates, we evaluate differences in preferences for introducing such amenities in platform work between the subgroups of workers forced to undertake platform work and those attracted to it.

The heterogeneity of workers' preferences and expectations constitutes a core reality of the platform economy. In the UK, most platform workers appear to support labour rights, trade unions, and co-determination, but these preferences vary across social groups (Beckmann et al., 2026; Martindale et al., 2024). Moreover, the extent of workers' economic dependence on platform earnings shapes both risk exposure and the subjective experience of the job (Ilsøe et al., 2021). A high degree of platform dependence is associated with greater distress, worse wellbeing outcomes (Guo et al., 2025) and lower job satisfaction (Schor et al., 2020). Platform work experience is also perceived by employers as more valuable than unemployment but less useful than traditional employment (Adermon and Hensvik, 2022). These findings point to a broader hypothesis: regulatory preferences and welfare consequences are likely mediated by workers' outside options, i.e., by the ease with which platform work can be substituted, combined with other jobs, or exited altogether. Regulatory responses can further amplify this variation: for instance, the introduction of a standard contract in one of the food delivery companies in Italy strengthened protections, yet its fit and consequences differed across workers depending on their dependence and availability (Bonifacio and Marcolin, 2024). Algorithmic ranking, task allocation, and monitoring can affect earnings volatility and sanction exposure, while migration status, the right to work, or language barriers can constrain bargaining power and raise the costs of exit, shaping both experiences and preferences (Maury, 2023).

While qualitative and quantitative research have richly documented platform working conditions and job quality (Kowalik et al., 2025; Martindale et al., 2024; Vieira, 2023; Wood et al., 2025), such studies often ask what amenities workers want, without systematically examining the trade-offs they are willing to make to obtain them. This distinction matters because preferences operate under constraints, which is why discrete-choice designs have been used to recover valuations of job amenities (Bustelo et al., 2022; Lewandowski et al., 2026; Mas and Pallais, 2017). For example, when "labour rights" (see Martindale et al., 2024) are operationalised as compulsory social insurance, many self-employed platform workers in Germany reject the idea, despite acknowledging risks and vulnerabilities (Beckmann et al., 2024). Survey evidence from Germany identifies distinct clusters of platform workers with different protection preferences, with implied willingness to pay for social protection ranging from 2% to 20% of platform income (Beckmann et al., 2026). This indicates a potential gap between declarative support for "more rights" and the monetised value workers attach to once trade-offs are made explicit.

Entry motivations may capture differences both in workers' preferences for flexibility and in the constraints under which they choose platform work. Autonomy and flexibility are core drivers of platform work (W.-C. Chen et al., 2019; Prassl, 2018) and broader sociological accounts locate it within workers' varied life situations and employment histories (Maury, 2024). Outcomes likely differ between people who undertake platform work because of its attractive features – such as flexibility and the opportunities offered ("pull" factors) – and those for whom

scarce alternative employment options, financial necessity, and lack of income are the primary drivers ("push" factors).¹ Evidence from Poland suggests that a substantial share of taxi and delivery workers entered the gig economy out of necessity (Kowalik et al., 2025). Ethnographic research on delivery work also documents platform labour as a strategy to avoid unemployment or exclusionary conditions shaped by language barriers, limited social networks, and discrimination (Newlands, 2022). More generally, workers may sort into platform work more often if local employability is lower (Zwysen and Piasna, 2024a). However, the relationship between economic constraints and willingness to pay for social protection is theoretically ambiguous: workers facing tighter constraints may value income protection more highly but may also be less able to forgo current earnings to obtain it.

Within this conceptual framework, we study how platform workers' valuations of job amenities vary with the factors that drew them to platform work. We rely on a pre-registered, stated-preference survey experiment among platform workers in three large European countries with distinct institutional contexts: Germany, Italy, and Poland. We focus on on-site platform workers in transport, delivery, and cleaning, and study the heterogeneity of their preferences conditional on push and pull motivations to engage in platform work. The main advantage of applying a discrete-choice experiment in the job-offer context is the comparison of workers' decisions when different job amenities are available. Due to the general scarcity of information on platform workers, our survey on job preferences offers one of the most substantial datasets currently available in the European context.

Our study makes two main contributions. First, we advance comparative research on platform labour by offering an operationalisable method to measure push and pull factors. While motivations and flexibility have been examined to explain participation in platform work (W.-C. Chen et al., 2019; Prassl, 2018; Vallas and Schor, 2020), push factors remain less systematically studied (except for Zwysen and Piasna, 2024a). We find substantial country variation. For 18.2% of Polish platform workers, push motivations outweigh pull motivations, compared with 33.8% in Italy and 34.9% in Germany. We also demonstrate that push–pull motivations are associated with differences in working conditions and job satisfaction. Workers classified as pushed work, on average, 7.8 hours more per week than pulled workers. They are also more economically dependent on platform work, as 52.9% of them derive most of their income from platforms, compared with 40.2% of pulled workers. Finally, pushed workers are less likely to report being satisfied with their work.

¹ This terminology is drawn from the entrepreneurship literature that distinguishes between necessity and opportunity entrepreneurs (Amit and Muller, 1995; Block and Wagner, 2010; Fossen and Büttner, 2013).

Third, we show that workers' valuations of social protection arrangements are structured by push-pull motivations. Workers who were pushed to platform work value such benefits much more than pulled workers: on average, the former are willing to forego 5.3% of their earnings for sick pay, and 5.6% for paid annual leave (both values statistically significant at the 1% level), whereas the latter are willing to give up only 3.1% for sick pay, and 4.2% for paid annual leave. Pushed workers also express particularly high WTP for these benefits more often. In the full sample, the top decile shows WTP levels above 14.3% of earnings for sick pay and 14.4% for paid annual leave. Among pushed workers, the share reporting WTP above such top-decile cut-offs is roughly twice as high as among pulled workers. This pattern is consistent with the idea that when platform work is difficult to exit due to weak outside options, the value of security rises because it protects income continuity and predictability. Moreover, a substantial minority of those involuntarily engaged in platform work are prepared to accept considerable income cuts in exchange for basic social protections. As the composition of platform workers in terms of motivations behind engaging in the gig economy differs between European countries, the context for the regulation of platform work in particular countries likely differs too. These findings connect to broader evidence of substantial preference heterogeneity in the valuation of social protection².

We also show that pushed workers without access to paid annual leave or sick pay exhibit higher valuations than those with access, in line with the outside option hypothesis (Ghorpade et al., 2024). At the same time, valuations among pulled workers differ little by access. One possible explanation is that, among pulled workers, high valuations reflect both unmet needs among those without coverage and preferences for security among those who have selected into jobs providing it. Greater scope to choose work arrangements that match their preferences could therefore help explain the smaller valuation gap in this group. Among pushed workers, more constrained choices may instead make unmet needs a stronger driver of valuations.

We acknowledge that regulating the platform economy aimed at improving working conditions and protections may also affect the supply of platform workers, particularly those attracted by flexible work. Social protections and amenities, such as sick pay and paid annual leave, are financed by employers and workers through social insurance contributions. If introducing them reduces flexibility or workers' net pay, some workers, especially those attracted by platforms' flexibility, may leave the sector, reducing labour supply. On the demand side, higher labour costs may lead platforms to reorganise their services and raise prices. In Spain, after some platforms were sanctioned for non-compliance with the labour regulations, workers moved to compliant platforms while labour supply and total

² Adams-Prassl et al. (2023) show 50% of workers were not willing to accept earnings lower by 2%, but as much as 30% of workers would forego 20% of earnings for it.

employment in the platform sector declined (Dolado et al., 2025). Regulation can therefore affect not only workers' conditions, but also labour supply, service prices, platform profits, and firms' demand for labour. This paper focuses on the first stage of this process: the factors that shape individuals' decisions to enter platform work and how workers in the sector value standard employment benefits.

The remainder of the paper is structured as follows. Section 2 describes the institutional settings of the countries included in the survey. Section 3 describes the data, sampling strategy, and the description of the experimental framework. Section 4 presents our results on differences in motivations, working conditions, and willingness to pay for benefits. Section 5 concludes by discussing implications for the design of social protection policies that can accommodate heterogeneity without entrenching inequality.

2. Context and institutional settings

Germany, Italy, and Poland provide analytically useful cases for comparison, as major European economies located in different regions and embedded in distinct labour-market and welfare-state traditions. However, they share a common feature: platform work is not fully regulated under dedicated law or fully incorporated into the standard employment framework in any of these countries. Platform workers, who constitute 3-9% of the working-age population (15-64) depending on the country (Table 1), are predominantly classified outside standard employment contracts and therefore lack statutory access to the social protection provisions that employees take for granted. In particular, employees in all three countries are entitled to paid sick leave and paid annual leave, whereas self-employed platform workers – the dominant contractual category – have no automatic access to either benefit. Hence, platform workers' access to common job amenities, such as paid annual leave and sick pay, remains incomplete and uneven, depending on workers' employment status and contractual arrangements.

Table 1. Platform work prevalence and statutory access to work benefits, by contract type

	Germany	Italy	Poland
Prevalence (% working-age population)	~4–6%	~4–9%	~3%
Sick pay – employees	100% of wage	100% (3 days), then 75%	80% of wage
Sick pay – self-employed	Voluntary contributions	Generally none	Voluntary contributions
Paid annual leave – employees	Yes, ≥20 days	Yes, ≥20 days	Yes, 20–26 days
Paid annual leave – self-employed	No	No	No
Dominant contract form	Self-employed	Self-employed / employee-like (couriers)	Self-employed / civil law contracts
Dedicated platform work legislation regarding employment status	No (case-law only)	Partial (Decrees 81/2015, 62/2026 + EU Directive)	No (taxi sector only)

Sources: Eurostat - *ad hoc* module of LFS in 2022; ETUC Country Report (2022); Fairwork (2024); Costantino and Gangemi (2025); Mika and Polkowska (2022).

In Poland, platform work remains largely unregulated. Most platform workers are engaged either as formally self-employed or through intermediaries under civil law contracts (*umowy cywilnoprawne*), a category that sits outside the labour code and carries no statutory entitlement to sick pay or paid annual leave. The first legislative attempt in 2016 required workers to register as self-employed to limit tax evasion, which in practice facilitated the spread of intermediary companies and further obscured employment relationships. Subsequent legislation has focused narrowly on the taxi sector (the 2020 Lex Uber law), while broader conditions for platform workers have remained absent from policy debate (Mika and Polkowska, 2022).

In Germany, no dedicated law governs platform work, but existing labour and social security legislation is applied on a case-by-case basis. The 2020 ruling of the Federal Labour Court (*Bundesarbeitsgericht*) established that delivery platform riders could be classified as employees under conditions of sufficient control. Yet, the vast majority of platform workers remain classified as self-employed. As a result, they fall outside collective bargaining coverage and must make voluntary contributions to access any sick pay insurance. Paid annual leave is similarly not available to self-employed workers under standard provisions.

In Italy, the regulatory framework has been more proactive. Legislative Decree No. 81/2015 extended certain employment-like protections to couriers performing continuous, personally executed work organised by the client, particularly in urban goods delivery. The circular 9 (April 2025) of the Italian Ministry of Labour and the legislative decree 62/2026 paved the way for the implementation of Directive (EU) 2024/2831 on platform work and tightened the regulatory framework. This decree introduced a structured test and a set of obligations that substantially narrow the space for bogus self-employment in platform-mediated work.

3. Data, methodology and descriptive evidence

3.1. Recruitment methods

Given the institutional settings, we focus on job attributes that platform workers generally lack in all countries covered – paid annual leave and sick pay. We refer to the collected data as the Platform Workers' Preferences Survey (PWPS). Data collection took place between January and July 2025.

We used two methods to recruit platform workers and collect data. First, we collected data via Facebook advertisements.³ To recruit platform workers, we set up country-specific Facebook pages. Following the procedure described by Martindale et al. (2024), we targeted platform workers with key interests such as “electric vehicle” and

³ The pilot ran from 29 January to 5 February 2025. We collected 25 responses, validated and revised the survey on this basis.

“Uber”, and occupations such as “Courier” and “Taxi Driver”. In each country, we fine-tuned the filters to capture country-specific platforms.⁴ We stratified the campaigns to four different populations – male taxi drivers, female taxi drivers, male couriers, and female couriers. Besides the national languages (Polish, German, and Italian), we ran ads and questionnaires in English, Ukrainian, and Russian to facilitate participation of migrant platform workers. As the platform economy is predominantly male, we allocated 70% of our advertising budget to reach male platform workers. The part of the survey conducted via Facebook was not incentivised. We collected 169 responses using the Facebook advertisements. Second, we recruited participants via a survey company, Norstat, which collected 608 observations across three countries between May and July 2025. The company targeted participants who work on platforms⁵. These respondents were incentivised in line with the company's policy.

To ensure surveying platform workers, we used a filtering question: “In the last 12 months, have you worked for any of these platforms?”. The survey answers are distributed evenly between the samples collected via Facebook and Norstat (see Appendix Table A1). Therefore, we pool data from both collection methods.

3.2. Experimental framework

A discrete-choice experiment (DCE) is a well-established method in labour economics to measure the preferences for different work arrangements (Lewandowski et al., 2026; Mas and Pallais, 2017; Van Landeghem et al., 2024). Compared to observational data, DCE allows randomising the characteristics of a specific good, such as a job offer, and observing individual choices under different conditions. DCE outperforms other valuation methods within the labour economics setting, and the estimated parameters are consistent with economic theory (Feld et al., 2022).

We exploit the variation in choice attributes to estimate platform workers’ preferences toward sick pay and paid annual leave coverage.⁶ Since our specification involves a monetary attribute – the (randomised) income loss associated with receiving a given job amenity – we can express workers’ preferences in terms of their willingness to forego wages to obtain amenities. Standard register data and large representative surveys do not include the alternatives individuals consider, making it difficult to determine which job characteristics matter. This problem is particularly understudied in the context of platform workers, who are often not included in conventional datasets.

⁴ For instance, in Poland, the Just Eat/Takeaway platform is called “Pyszne.pl”.

⁵ Norstat enlisted the following platform companies to filter participants: Amazon Flex, Bolt, Deliveroo, DoorDash, Foodora, Getir, Glovo, Gorillas, Just Eat/Lieferando, Uber, Uber Eats, Wolt.

⁶ We intentionally omit other benefits, such as unemployment and health insurance, as country-specific legal frameworks govern them and are usually not subject to change through collective bargaining agreements.

The preferences assessment involved screening different potential choices, with two competing choice sets and the status quo alternative⁷ (Appendix Figure A1). We made our choice experiment simple to avoid exhausting workers' cognitive resources and ensure the high reliability of the collected data. Each participant screened five sets (two alternatives) of job offers, which differed regarding access to sick leave, paid annual leave, and earnings loss from extending access to workers' benefits (Table 2).

Table 2. Choice attributes levels

Attribute	Type	Levels
Access to paid annual leave	nominal	Yes, No, status quo
Access to sick-pay	nominal	Yes, No, status quo
Earnings loss	discrete	-15%, -12%, -9%, -6%, -3%, 0

Source: Own elaboration.

Since our sample size is limited because the surveyed population is narrow and hard to reach, we used an optimal design framework to ensure that the collected responses provide a maximum amount of information about the choices.⁸ Using the procedure and software of Traets et al. (2020), we first generated a design assuming no prior knowledge of respondents' preferences. Second, after fielding a small pilot, we used its results to update assumptions and regenerate a more efficient design⁹. We also split respondents into groups shown different sets of choices (of comparable efficiency), so that across the full sample we obtained a broader range of comparisons than any single respondent could provide. We tested whether respondents systematically chose some alternatives (I, II, or Status Quo) over others, which could indicate non-engagement in completing the survey. We did not find such evidence, as at most in the case of the 3rd Choice Set, 60.4% of Facebook respondents chose alternative I (Appendix Table A1).

In the survey, we also collected data on respondents' socio-demographic characteristics, job satisfaction, income, platform work type, and other factors (see detailed descriptions in Table 3).

⁷ The choice card presented to respondents is shown in Appendix Figure A1.

⁸ In our setting, there are 20 job offers, so comparing every potential offer would yield 190 unique choice cards in the full-factorial design.

⁹ We have used an efficient design that maximizes Fisher information – a standard measure of how precisely a design allows us to estimate preference parameters – computed via the Modified Fedorov algorithm for models with categorical and mixed-level attribute.

Table 3. Contextual information collected on platform workers

Variable	Type	Levels
Frequency of working in the platform economy in the past 12 months	nominal	Never, Once, Less than once a month,
Employment type	nominal	Employee, self-employment, Other
Reasons behind taking up a gig job	nominal	• Lack of other job opportunities, • Loss of (all or part of) household income, • Flexibility in choosing working time, • "I like this kind of job", • Easy recruitment process and a swift start of work, • Willingness to earn some extra money
Is the platform the main source of income?	binary	Yes, No
Share of income obtained from platform work	numeric	0-100%
Hours worked in the platform economy	numeric	0-80+
Weekly net income obtained from platform work	numeric	
Reported being entitled to sick pay/paid annual leave*	binary	Yes, No
Accidents at work encountered	nominal	Traffic accident, Verbal or physical abuse, Other forms of violence or danger, None
Job satisfaction	ordinal	Not at all satisfied, Not very satisfied, Satisfied, Very satisfied

Note: *The question was: "While working in the platform economy, were you entitled to sick pay/paid annual leave?" "Sick pay" and "paid annual leave" were explained to respondents. In the final database, the responses "No" and "I don't know" were combined.

Source: Own elaboration.

Our study, data collection, and experiment received ethics approvals from KU Leuven's Privacy and Ethics platform (decision PRET approval number: G-2024-8262-R2(MIN)). We pre-registered the experiment in the American Economic Association's registry for randomised controlled trials (RCT ID: AEARCTR-0013087).

3.3. Econometric specification

To quantify platform workers' preferences for sick pay and paid annual leave, we estimate their willingness to pay (WTP), which expresses their valuation of these amenities in monetary terms. We use the Random Utility Framework which assumes that workers make rational choices with respect to different job amenities (Lancaster, 1966; McFadden, 2001). The hedonic utility function can be decomposed into the utilities derived from different job characteristics. Consequently, we can present the workers' preferences as an additive utility function:

$$U_{ijt} = \beta_0 + \beta_1 SickPay_{ijt} + \beta_2 AnnualLeave_{ijt} + \beta_3 IncomeLoss_{ijt} + \varepsilon_{ijt} \quad (1)$$

where U_{ijt} refers to the utility from choosing j -th job offer by i -th individual in period t , and ε_{ijt} is a random component attributed to factors different from those specified.

However, since utility is unobserved, we recalculate the estimated parameters – β_k , for k different attributes – into the willingness-to-pay space, where each parameter is presented in monetary form. For instance, to derive the equivalent wage level with access to sick pay with no change in utility, equation (1) can be rewritten as:

$$dU = \beta_1 dSickPay + \beta_3 dEarningsLoss = 0 \quad (2)$$

and further rewritten as a ratio:

$$\frac{d \text{IncomeLoss}}{d \text{SickPay}} = -\frac{\beta_1}{\beta_3} = WTP \quad (3)$$

This translates into estimating the marginal rates of substitution of (non-monetary) job amenities for the earnings loss. These recalculated parameters represent the implicit prices of different (non-monetary) job characteristics. We use a Random Parameter Mixed Logistic model (RP-MIXL) in the estimation. The model allows for respondent-specific preferences – β_{ik} – and for flexible substitution patterns, as new alternatives are added to the choice set.

In the RP-MIXL framework, estimated coefficients for amenities are expected to follow some defined distribution and are considered in the same sense as random variables, where each specific β_{ik} is drawn from this distribution. For all work attributes, we use a random normal distribution. We compute the mean WTP for sick pay and paid annual leave across various subgroups using a partially analytical, partially simulation-based method based on the delta method, which is computationally less demanding and provides consistent results even in small samples (Scaccia et al., 2023). As each respondent makes repeated choices, our data are panel data.

We examine heterogeneity across split samples, focusing first on differences related to workers' "push" and "pull" factors for entering platform work. Respondents were asked about their reasons for taking up platform work. We classify "lack of other job opportunities" and "loss of all or part of household income" as push factors. In turn, "flexibility in choosing working time", preference for this type of job ("I like this kind of job"), "easy recruitment process and the swift start of working", and "willingness to earn some extra money" are classified as pull factors.

We operationalise being "pushed" as a function of the relative balance between push (necessity-driven) and pull (preference-driven) factors behind entering platform work. For each respondent, i , we computed:

$$C_i = P_i - 0.5 L_i \quad (4)$$

where P_i is the count of reported push factors and L_i is the count of reported pull factors. Pull factors were down-weighted by a factor of 0.5 to adjust for the unequal number of available items in the questionnaire, as respondents could choose from four pull factors but only two push factors. Respondents with a positive score ($C_i > 0$) were coded as pushed.

We acknowledge that DCEs may be subject to hypothetical bias, as these are stated preferences, and, in real-life circumstances, people may behave differently (Whitehead et al., 2016). In particular, the WTP may be overestimated and is sometimes referred to as the maximum price that one is willing to pay, but not the one that maximises individual utility (List and Gallet, 2001; Schmidt and Bijmolt, 2020). The theories behind WTP estimation using stated preferences emphasise that bias also arises from uncertainty. However, these issues are arguably less of a concern in our setting. Platform workers often switch between platforms, looking for the most preferred working conditions, so a choice among job offers as in our survey is less abstract for them. Mas and Pallais (2017) showed that DCEs and fieldwork experiments provide consistent estimates of workers' preferences. Wiswall and Zafar (2018) and Lewandowski et al. (2026) found that stated preferences regarding job outcomes strongly predict real choices made afterwards, especially regarding job amenities and forms of work.

3.4. Descriptive statistics

In all countries, most of the surveyed platform workers are men, young or prime-aged, and do not have a university degree (Table 4). In Italy, women account for 45.5% of the sample, the highest share of all countries.

The socio-demographic structure of our sample resembles that of platform workers in Europe, as established by the cross-country Internet and Platform Work Survey (IPWS), conducted in 2022 (Zwysen and Piasna, 2024b), and country-specific surveys. Compared to the IPWS, our sample includes a slightly higher proportion of men, a greater share of individuals with higher education, and a higher share aged 30-49 (see Appendix Table A2). It is worth noting that the IPWS' country sample sizes were smaller than ours. In Germany, the PWPS sample is slightly younger than the population surveyed by Beckmann et al. (2024), and the share of migrants is markedly lower (18.2% vs. 36%). In Poland, compared to the Polish Platform Work Survey (PPWS, see Kowalik et al., 2025) conducted in 2021, workers in our sample are slightly older and more educated. In addition, our sample includes a higher share of female workers (23.9% vs. 10%) and a lower share of migrants (8.2% vs. 36%). In Italy, the share of women in our sample (45.5%) aligns with that in the INAPP-PLUS data¹⁰ on platform workers (46.0%, Cirillo et al., 2023); see Appendix Table A2. The proportion of migrants among total respondents is also comparable (2.0% in the INAPP-PLUS versus 5.9% in our sample). However, our Italian sample displays a higher percentage of highly educated workers (41.7% versus 16%) and older workers (23.2% versus 10%), while younger workers are underrepresented (15.5% versus 45%).

¹⁰ The 2018 wave of the Participation, Labour, Unemployment Survey conducted by the National Institute for the Analysis of Public Policies in Italy (INAPP-PLUS survey) included an ad-hoc module that covered 212 platform workers (excluding 29 individuals who performed only online activities and non-respondents; see Cirillo et al., 2023, Table 1 and footnote 6).

Table 4. Sample structure of the Platform Workers' Preferences Survey (in %)

Variable	Germany	Italy	Poland	Total
<i>Gender</i>				
Men	65.9	54.5	76.1	65.0
Women	34.1	45.5	23.9	35.0
<i>Age group</i>				
18-29	18.0	15.5	31.1	21.3
30-49	60.0	61.3	47.1	56.4
50 and above	22.0	23.2	21.7	22.3
<i>Education</i>				
Non-university	52.3	58.3	51.2	54.1
University	47.7	41.7	48.8	45.9
<i>Platform type</i>				
Delivery courier	74.8	69.9	45.3	63.7
Taxi/ride-hailing	41.5	35.3	50.6	42.2
Cleaning/household	18.6	21.3	17.8	19.3
<i>Migrant status</i>				
Yes	18.2	5.9	8.2	10.7
No	81.8	94.1	91.8	89.3
<i>Motivations</i>				
Pushed	34.9	33.8	18.2	29.2
Pulled	65.1	66.2	81.8	70.8
<i>Economically dependent on platform work</i>				
Yes	43.4	40.1	48.6	43.9
No	56.6	59.9	51.4	56.1
N	258	272	247	777
Share of total sample (%)	33.2	35.0	31.8	100.0

*Note: Percentages in the platform type category do not add up to 100% because respondents could select multiple options. *2 responses "nonbinary", 2 responses "I don't want to disclose" were coded as missing observations. Percentages for each characteristic exclude missing values for that characteristic*

Source: own calculations based on PWPS.

Economic dependence on platform work was relatively evenly distributed: overall, 43.9% of respondents were economically dependent on platform work, compared with 56.1% who were not, with dependence highest in Poland (48.6%), followed by Germany (43.4%) and Italy (40.1%, Table 4). Regarding workers' motivations for taking up platform work, 29.2% of respondents were classified as "pushed," meaning that push factors outweighed pull

factors.¹¹ However, notable cross-country differences emerge: the proportion of pushed workers is quite similar in Germany (34.9%) and Italy (33.8%), but considerably lower in Poland (18.2%)¹².

Next, we compare the composition and working conditions of pushed and pulled platform workers. In terms of demographic structure, the differences between these groups are marginal. Women are almost equally represented in both groups (36% vs 34%, $p = 0.61$), as are migrants (10% vs 11%, $p = 0.55$), and the age structure is broadly similar. Pulled workers, however, are considerably more likely to hold a university degree (50% vs 37%, $p < 0.01$). The country composition differs noticeably, as Poland accounts for only 20% of the pushed but 37% of the pulled, while Germany and Italy account for higher shares of those pushed.

Importantly, work patterns differ systematically between the pushed and pulled workers. Pushed workers earn most of their income on platforms much more often than pulled workers (53% vs 40%, $p < 0.01$), they work longer hours (on average 37.7 vs 29.8 per week, $p < 0.01$), and they have experienced a work-related incident more often (53% vs 36%, $p < 0.01$). They also report greater access to paid annual leave and sick pay, consistent with a stronger and more formalised attachment to platform work as a primary occupation. Pulled workers, by contrast, report higher job satisfaction (0.73 vs 0.62, $p < 0.01$). Taken together, the two groups engage with platform work in different ways – the pushed relying on it more heavily, working it more intensively, and bearing more of its risks.

¹¹ The full list of reasons reported by respondents is presented in Appendix Table A3.

¹² We do not report on self-reported employment status in the platform economy. First, the categories are not cross-nationally comparable: what constitutes an employment contract differs across Germany, Italy, and Poland, so identical responses may reflect meaningfully different legal arrangements. Second, self-reported status may not reliably capture actual working conditions. Platform firms often use subcontracting arrangements in which formal contracts are frequently inaccessible, do not govern the working relationship in practice, and leave many workers unable to accurately identify their own legal status (Fairwork 2024, 2026).

Table 5. Characteristics of pushed and pulled platform workers (in %)

Characteristic	Pushed	Pulled	Difference
Age			
18-24	8.0	10.8	-2.8
25-29	6.2	13.4	-7.2***
30-34	16.4	15.0	+1.4
35-39	18.7	15.0	+3.6
40-44	13.8	13.9	-0.2
45-49	11.6	10.6	+0.9
50-54	13.3	7.9	+5.4**
55-59	8.0	6.1	+1.9
60 or older	4.0	7.2	-3.2*
Women	36.4	34.4	+2.0
University education	36.9	49.6	-12.7***
Migrant	9.7	11.2	-1.5
Country			
Germany	39.6	30.5	+9.1**
Italy	40.5	32.7	+7.8**
Poland	19.8	36.7	-16.9***
Has access to paid annual leave	48.0	33.1	+14.9***
Has access to sick pay	49.8	37.5	+12.3***
Work-related incident	53.3	36.4	+16.9***
Platform income above 50% of total	52.9	40.2	+12.7***
Hours worked per week (in hours)	37.7	29.8	+7.8***
Job satisfaction	62.1	73.0	-10.9***
Number of respondents	227	550	

Note: Job satisfaction is binary: responses 1-2 are Unsatisfied (0), and responses 3-4 are Satisfied (1). The Difference column reports the pushed-minus-pulled gap (in percentage points for percentage rows) and its statistical significance from a two-sample t-test of equal group means. Only respondents who answered "Yes" to the question about access to amenities were coded as having access; responses "I do not know" were recoded as 0. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

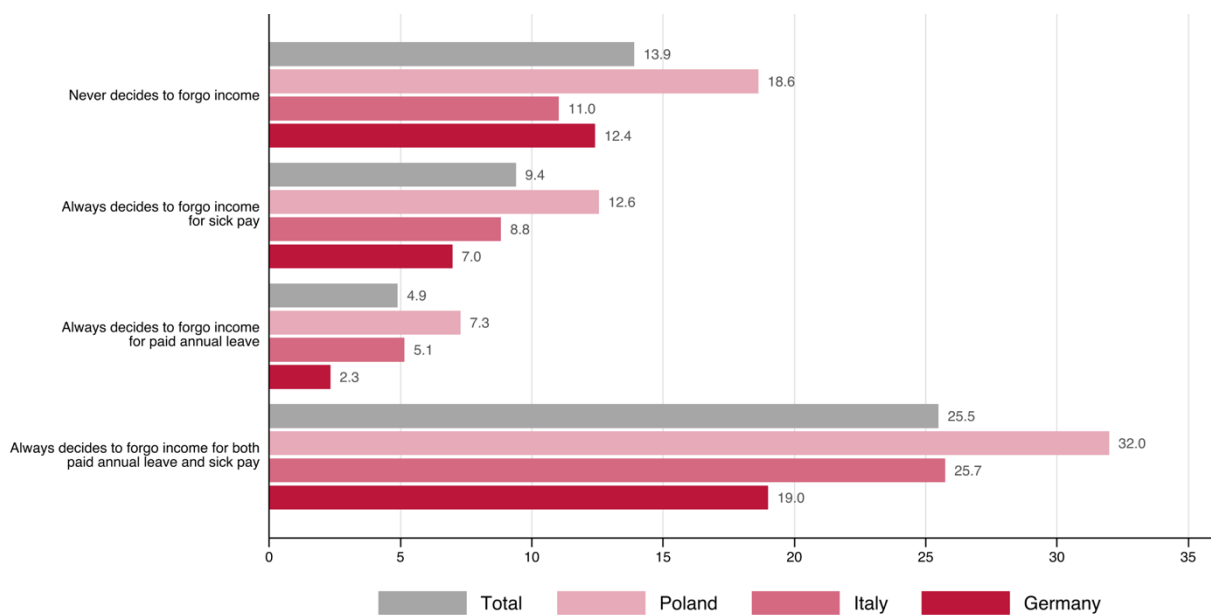
Source: own estimations based on PWPS.

4. Results

4.1. Willingness to pay for sick pay and paid annual leave

Here, we use the discrete-choice experiment to quantify platform workers' valuations of social protections. Descriptively, we find that 13.9% of individuals never chose to give up any earnings for either sick pay or paid annual leave coverage, while 9.4% always traded some income for sick pay coverage, 4.9% for paid leave coverage, and 25.5% for having access to both (Figure 1). These values suggest high heterogeneity in workers' preferences regarding social protection and amenities. We also find some differences between countries, as 18.6% of platform workers in Poland chose to never forgo income for any amenity, compared to 11.0% in Italy and 12.4% in Germany. By contrast, in Poland, 32.0% of workers always decided to forgo income for both paid annual leave and sick pay, compared to 25.7% in Italy and 19% in Germany.

Figure 1. Respondents' choices, conditional on available sick pay and paid annual leave in the choice set



Note: Shares of respondents by choice pattern. "Always decides to forgo income for both paid annual leave and sick pay" denotes respondents who consistently chose the alternative with both sick pay and paid annual leave, regardless of the income cost; "Always decides to forgo income for paid annual leave" and "Always decides to forgo income for sick pay" denote those who selected an income-reducing alternative containing the respective benefit in all five choice sets in which that benefit was available; "Never decides to forgo income" denotes respondents who never selected an item with the attributed cost. Remaining respondents (not shown) exhibit mixed choice

Source: own calculations based on PWPS.

Next, we use the estimated distributions of willingness-to-pay values to quantify platform workers' perceived benefits from sick pay and paid annual leave rights. Table 6 presents WTP estimates both for the pooled sample and for workers who were pushed into platform work by lack of income or other job opportunities, as opposed to

workers who were pulled to it by flexibility. To this aim, we interact preference parameters (sick pay, annual leave) with the indicator variable for workers pushed into platform work. This specification allows both the mean and the variance of WTP to differ freely between the two groups, and the statistical significance of the differences between groups is assessed by Wald tests on the interaction terms. Focusing on differences between pushed and pulled workers allows identifying groups with contrasting preferences towards social security in the platform economy.

In the pooled sample across three countries¹³, the average WTP amounts to 3.7% for sick pay and 4.6% for paid annual leave, both expressed in terms of foregone earnings (Table 6). Among pushed workers, the valuations are slightly higher, as they are willing to forgo on average 5.3% of earnings to gain access to sick pay and 5.6% to gain paid annual leave entitlement. In contrast, pulled workers' WTPs for sick pay and paid annual leave are lower and amount to 3.1% and 4.2%, respectively. The differences between groups are statistically significant, as confirmed by the Wald test (sick pay: $\chi^2(1) = 7.51$, $p = 0.006$; annual leave: $\chi^2(1) = 4.31$, $p = 0.038$). Among pushed workers, 17.5% exhibit a WTP for sick pay above the 9th decile of the full-sample distribution, and 15.8% do so for paid annual leave; twice as high as the corresponding shares among pulled workers (7.8% and 8.3%, respectively). Moreover, the share of workers unwilling to sacrifice any earnings for social protections (a non-positive WTP) is lower among pushed workers (29.4% in the case of sick pay, 26.3% in the case of paid annual leave) than among the pulled workers (34.6% and 28.2%, respectively).

To assess whether the higher valuations observed among pushed workers reflect their motivation to secure social protections or merely the compositional characteristics of the pushed group, we examine whether the pushed–pulled differences in WTP persist within selected subgroups. We begin by distinguishing between workers who already have access to sick pay and paid annual leave and those who lack these benefits. This allows us to determine whether the higher WTP among pushed workers primarily reflects unmet protection needs or remains visible even among workers who already have access to these benefits. We then consider two dimensions of platform-work experience and work patterns on which pushed workers were overrepresented (Table 5): economic dependence on platform work, measured by whether it constitutes the worker's main source of income, and exposure to an accident or violence while working through a platform. For each dimension, we estimate WTP for both sides of the comparison. Table 6 presents the full-sample results followed by estimates for these subgroups.

The pushed–pulled gap is concentrated among workers who lack access to job amenities. Pushed workers without access to sick pay are willing to forgo 5.8% of their income for sick pay and 6.3% for paid annual leave, compared with 3.2% and 4.5%, respectively, among pulled workers without such access; both differences are statistically

¹³ Estimates for each country separately can be found in Appendix Table A4.

significant (sick pay: $\chi^2(1) = 7.80$, $p = 0.005$; annual leave: $\chi^2(1) = 4.30$, $p = 0.038$). A similar pattern emerges among workers without access to paid annual leave: pushed workers report higher WTP for both sick pay (5.8% versus 3.5%, $\chi^2(1) = 6.16$, $p = 0.013$) and paid annual leave (6.2% versus 4.5%, $\chi^2(1) = 3.95$, $p = 0.047$). By contrast, no statistically significant pushed–pulled differences are found among workers who already have access to sick pay or paid leave. Lack of coverage may therefore be experienced differently by pushed and pulled workers. For pushed workers, who entered platform work under greater economic constraint, the absence of sick pay or paid leave may represent an unmet need: their higher valuations may reflect the value of closing a gap in protection that they have limited scope to address through their choice of work. Among pulled workers, valuations differ little by access, potentially reflecting two distinct mechanisms. Those without coverage may value benefits because they would meet an unmet need, while those with coverage may have selected into work providing benefits because they value security. Greater scope to choose work arrangements consistent with their preferences could therefore help explain the smaller valuation differences by access among pulled workers.

At the same time, we find no statistically significant differences between pushed and pulled workers among those who depend on platform work as their main source of income or among those who have experienced an accident or violence while working through a platform. Workers in these more vulnerable groups generally report higher WTP than their counterparts in the complementary groups, but the pushed–pulled distinction becomes less pronounced. This suggests that economic dependence and adverse platform-work experiences may increase demand for social protection, regardless of workers' motivation to enter platform work. Among workers for whom platform work is a secondary source of income, pushed workers report higher WTP for both sick pay (4.7% versus 2.8%; $\chi^2 = 3.56$, $p = 0.059$) and paid annual leave (6.0% versus 4.5%; $\chi^2 = 3.47$, $p = 0.062$), with both differences statistically significant at the 10% level. Among workers who have not experienced an accident or violence, the pushed–pulled difference is large and statistically significant for sick pay (5.6% versus 2.9%; $\chi^2 = 10.85$, $p = 0.001$), but smaller and not statistically significant for paid annual leave (5.0% versus 3.8%; $\chi^2 = 2.35$, $p = 0.125$). Thus, when observable indicators of vulnerability are absent, being pushed into platform work may capture less visible forms of insecurity or unmet protection needs that continue to differentiate workers' valuations.

Table 6. Willingness to pay for sick pay and paid annual leave (% of income; income-random mixed logit, no case-level controls; 95% CI)

Base level controls, 50-60 yr									
N		WTP for sick pay		WTP for paid annual leave		Share of workers with WTP for sick pay above (in %)		Share of workers with WTP for paid annual leave above (in %)	
Group		Mean (95% CI)	SD (SE)	Mean (95% CI)	SD (SE)	> 0	> 9th decile (pooled, 14.3%)	> 0	> 9th decile (pooled, 14.4%)
Full sample									
All	777	3.71*** (2.75; 4.67)	8.25 (0.95)	4.57*** (3.61; 5.54)	7.66 (0.95)	67.4	10.0	72.5	10.0
Pushed	227	5.25*** (3.69; 6.81)	9.68 (1.23)	5.58*** (4.19; 6.96)	8.79 (1.18)	70.6	17.5	73.7	15.8
Pulled	550	3.11*** (2.09; 4.13)	7.86 (0.91)	4.23*** (3.22; 5.25)	7.33 (0.93)	65.4	7.8	71.8	8.3
Wald test		$\chi^2=7.51^{***}$ ($p=0.006$)		$\chi^2=4.31^{**}$ ($p=0.038$)					
No access to sick pay									
All	458	3.83*** (2.64; 5.03)	7.81 (1.07)	4.95*** (3.68; 6.23)	7.87 (1.12)	68.8	9.0	73.5	11.5
Pushed	114	5.83*** (3.87; 7.79)	9.36 (1.39)	6.29*** (4.46; 8.12)	9.11 (1.38)	73.3	18.3	75.5	18.7
Pulled	344	3.18*** (1.94; 4.41)	7.39 (1.01)	4.54*** (3.23; 5.85)	7.53 (1.08)	66.6	6.6	72.7	9.6
Wald test		$\chi^2=7.80^{***}$ ($p=0.005$)		$\chi^2=4.30^{**}$ ($p=0.038$)					
Has access to sick pay									
All	319	3.83*** (2.10; 5.56)	9.70 (1.96)	4.27*** (2.73; 5.82)	7.53 (1.75)	65.4	14.1	71.5	9.0
Pushed	113	4.53*** (1.95; 7.11)	10.49 (2.32)	4.83*** (2.69; 6.97)	8.35 (2.17)	66.7	17.6	71.8	12.6
Pulled	206	3.48*** (1.54; 5.43)	9.40 (1.96)	4.01*** (2.31; 5.71)	7.16 (1.77)	64.5	12.5	71.3	7.4
Wald test		$\chi^2=0.55$ ($p=0.459$)		$\chi^2=0.56$ ($p=0.455$)					
No access to paid annual leave									
All	486	4.05*** (2.84; 5.26)	8.09 (1.13)	4.88*** (3.64; 6.12)	7.98 (1.15)	69.2	10.3	72.9	11.7
Pushed	118	5.81*** (3.87; 7.75)	9.59 (1.48)	6.21*** (4.36; 8.07)	9.30 (1.45)	72.8	18.8	74.8	19.0
Pulled	368	3.48*** (2.23; 4.72)	7.68 (1.06)	4.47*** (3.21; 5.73)	7.62 (1.11)	67.5	8.0	72.1	9.7
Wald test		$\chi^2=6.16^{**}$ ($p=0.013$)		$\chi^2=3.95^{**}$ ($p=0.047$)					

Has access to paid annual leave									
All	291	3.46*** (1.77; 5.15)	8.91 (1.76)	4.35*** (2.76; 5.95)	7.16 (1.71)	65.1	11.2	72.8	8.1
Pushed	109	4.58*** (1.99; 7.17)	10.06 (2.16)	4.85*** (2.75; 6.95)	7.87 (2.05)	67.6	16.8	73.1	11.3
Pulled	182	2.82*** (0.90; 4.73)	8.40 (1.72)	4.12*** (2.32; 5.92)	6.83 (1.77)	63.1	8.6	72.7	6.6
Wald test		$\chi^2=1.49$ ($p=0.223$)		$\chi^2=0.44$ ($p=0.507$)					
Platform as main income source (>50%)									
All	341	4.41*** (2.78; 6.03)	9.64 (1.77)	4.36*** (2.85; 5.86)	8.40 (1.63)	67.6	15.3	69.8	11.6
Pushed	120	5.59*** (3.14; 8.04)	10.97 (2.22)	5.01*** (3.01; 7.00)	9.19 (1.88)	69.5	21.4	70.7	15.4
Pulled	221	3.78*** (2.04; 5.52)	9.05 (1.69)	4.04*** (2.35; 5.73)	8.04 (1.66)	66.2	12.3	69.2	9.9
Wald test		$\chi^2=2.07$ ($p=0.150$)		$\chi^2=0.82$ ($p=0.366$)					
Platform not main income source (<=50%)									
All	436	3.27*** (2.08; 4.46)	7.41 (1.09)	4.81*** (3.52; 6.09)	7.25 (1.17)	67.0	6.9	74.6	9.3
Pushed	107	4.69*** (2.71; 6.67)	8.56 (1.38)	6.04*** (4.09; 7.98)	8.53 (1.52)	70.8	13.1	76.1	16.4
Pulled	329	2.83*** (1.55; 4.11)	7.25 (1.08)	4.50*** (3.19; 5.81)	6.98 (1.13)	65.2	5.7	74.0	7.8
Wald test		$\chi^2=3.56^*$ ($p=0.059$)		$\chi^2=3.47^*$ ($p=0.062$)					
Experienced accident or violence in platform work									
All	321	4.56*** (2.55; 6.57)	12.42 (2.36)	6.20*** (4.21; 8.19)	11.24 (2.54)	64.3	21.7	70.9	23.3
Pushed	121	4.78*** (1.79; 7.76)	12.64 (2.50)	6.87*** (4.42; 9.32)	12.14 (2.83)	64.7	22.6	71.4	26.8
Pulled	200	4.43*** (2.06; 6.80)	12.32 (2.47)	5.81*** (3.51; 8.11)	10.68 (2.60)	64.0	21.2	70.7	21.1
Wald test		$\chi^2=0.04$ ($p=0.845$)		$\chi^2=0.62$ ($p=0.431$)					
No accident or violence in platform work									
All	456	3.49*** (2.39; 4.59)	6.64 (0.98)	4.09*** (2.98; 5.19)	6.35 (0.98)	70.0	5.2	74.0	5.2
Pushed	106	5.56*** (3.75; 7.38)	8.31 (1.34)	5.00*** (3.32; 6.68)	7.20 (1.22)	74.8	14.7	75.6	9.6
Pulled	350	2.89*** (1.77; 4.00)	6.20 (0.91)	3.84*** (2.71; 4.98)	6.16 (0.95)	67.9	3.3	73.4	4.4
Wald test		$\chi^2=10.85^{***}$ ($p=0.001$)		$\chi^2=2.35$ ($p=0.125$)					

Note: No case-level controls. Reference q90 from a full-sample income-random mixed logit without interaction terms, used as fixed thresholds across all specifications. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Source: own estimations based on PWPS.

4.2. Robustness checks

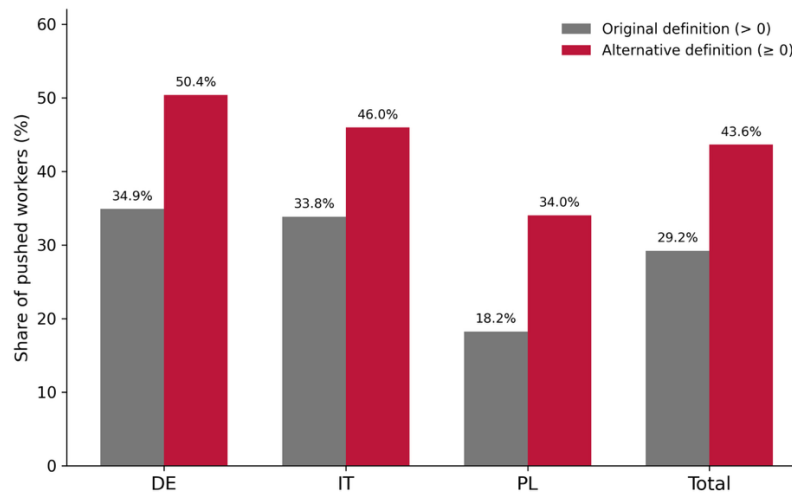
As the first robustness check, we re-estimate the effects for pushed and pulled workers by splitting the sample and fitting separate mixed logit models for each subgroup, rather than pooling observations and identifying differences through interaction terms. This approach allows all model parameters, including the variance of the random coefficients, to vary across groups, at the cost of reduced precision in smaller subsamples. Appendix Table A5 reports the resulting WTP estimates and distributional statistics.

The results align closely with those from the interaction approach reported in Table 6 and across most subgroups, providing support for the robustness of the main findings. In the full sample, pushed workers exhibit higher WTP than pulled workers for both sick pay (5.3% versus 3.3% of income) and paid annual leave (6.1% versus 4.2%). Differences are also evident in the upper tails of the estimated preference distributions. The proportion of pushed workers whose WTP exceeds the ninth-decile threshold derived from the pooled distribution reaches 20.8% for sick pay and 19.3% for paid annual leave, compared with only 6.7% and 7.4%, respectively, among pulled workers. Across most subgroup specifications, the corresponding shares among pushed workers remain close to 20%, whereas those among pulled workers generally range between approximately 5% and 10%. As in the baseline specification, the pushed–pulled differences are especially apparent among workers who lack access to the relevant protections.

As a second robustness check, we examine whether the results are sensitive to the threshold used in the pushed/pulled classification. In the main specification, a worker is classified as pushed if the number of pushed factors exceeds the number of (weighted) pulled factors. Here, we adopt a broader definition that also treats workers with exactly equal push and pull factor scores as pushed. This boundary change reclassifies 112 workers from pulled to pushed, increasing the share of pushed workers from 29.2% to 43.6% (Figure 2).

Comparison of pushed and pulled workers under the alternative definition provides a pattern broadly consistent with the differences reported in Table 5 (full results in Appendix Table A6). Several key differences become even more pronounced: pushed workers are more likely to have experienced a work-related incident (53.4% vs. 32.0%; a 21.4 pp. gap compared with 16.9 pp. under the main definition) and to derive more than half of their income from platform work (53.1% vs. 36.8%; a 16.3 pp. gap compared with 12.7 pp.). They are also less likely to have a university education (38.4% vs. 51.7%), work more hours per week (36.8 vs. 28.5), and report lower job satisfaction (0.64 vs. 0.74). The country pattern is also largely preserved: pushed workers remain overrepresented in Germany and underrepresented in Poland, while the difference for Italy is no longer statistically significant.

Figure 2. Pushed Workers: Baseline vs. Alternative Definition, overall and by country



Note: Original definition: push factors outweigh pull factors. Alternative definition: the number of push factors is equal to or higher than the number of pull factors. Original definition: 227 pushed and 550 pulled, alternative definition: 339 pushed and 438 pulled.

Source: Own calculations based on PWPS.

Appendix Table A7 reports WTP estimates from the interaction model under the broader definition of pushed workers. The results are consistent with the baseline specification. Across the full pooled sample, pushed workers' WTP for sick pay is 5.6% and for paid annual leave 5.7%, against 2.4% and 3.9% for pulled workers; both Wald tests remain statistically significant. The subgroup results under the broader pushed definition generally reinforce the findings from the main specification reported in Table 6. The pushed–pulled differences remain most pronounced among workers who lack access to job amenities and become larger and more precisely estimated. Among workers without access to sick pay, pushed workers' WTP amounts to 6.3% for sick pay and 6.4% for paid annual leave, compared with 2.4% and 4.1%, respectively, among pulled workers. Both gaps are statistically significant (sick pay: $p < 0.001$; paid annual leave: $p = 0.003$) and larger than under the main definition. The same applies to workers without access to paid annual leave: pushed workers are willing to forgo 6.0% of their income for sick pay and 6.3% for paid annual leave, compared with 2.8% and 4.0% among pulled workers ($p < 0.001$ and $p = 0.003$, respectively). Among workers with access to sick pay, neither difference is statistically significant, consistent with the main results. Among those with access to paid annual leave, the annual leave gap remains insignificant, although the difference in WTP for sick pay becomes significant under the broader definition (5.0% versus 1.8%, $p = 0.029$).

The broader definition of being pushed to platform work confirms pushed–pulled differences within groups for which the main specification produced weaker or insignificant results. Among workers who depend on platform work as their main source of income, pushed workers report higher WTP for both sick pay (5.9% versus 2.8%, $p = 0.012$) and paid annual leave (5.7% versus 3.0%, $p = 0.014$), whereas neither gap was significant under the main definition. Similarly, among workers who have experienced an accident or violence while working through a

platform, the sick-pay gap becomes statistically significant (6.2% versus 2.5%, $p = 0.033$), while the gap pertaining to paid annual leave remains insignificant. Among workers for whom platform work is not the main income source, the sick-pay difference becomes more precisely estimated (5.0% versus 2.3%, $p = 0.003$), but the paid-annual leave gap is smaller and no longer statistically significant (5.6% versus 4.5%, $p = 0.193$). Finally, among workers without experience of an accident or violence, the sick-pay gap remains large and significant (5.3% versus 2.6%, $p < 0.001$), while the paid-annual leave gap also becomes significant under the broader definition (5.3% versus 3.5%, $p = 0.007$).

Taken together, these results confirm that the main conclusion is robust to the choice of threshold. Under the broader definition, pushed workers generally display higher WTP for social protection than pulled workers, with the estimated differences often becoming larger and more precise.

Appendix Table A8 compares baseline models with and without controls for age group, gender, university education, migrant status, country, access to sick pay, access to paid leave, any work-related incident, and whether platform work provides more than 50% of income. Including these controls provides slightly higher WTP estimates, supporting our choice of the more conservative specification without controls, which also allows us to maintain a consistent specification across subgroups defined by access to benefits, incident experience, and reliance on platform income.

5. Conclusions

This paper examines the preferences for social protection among platform workers in three European countries (Germany, Italy, and Poland) using a discrete-choice survey experiment and willingness-to-pay estimates. Respondents were presented with repeated choices between platform job alternatives differing in the provision of sick pay, paid annual leave, and an associated earnings loss, allowing us to estimate the earnings share that workers are willing to forgo in exchange for each benefit. A key contribution is the distinction between workers who entered platform employment primarily because of its pull attributes – flexibility, autonomy, supplementary income – and those who did so under economic pressure or in the absence of better alternatives. We refer to these groups as pulled and pushed workers, respectively, and estimate their willingness to pay separately for each using a mixed logit framework that accommodates heterogeneity in preferences.

The findings reveal consistent and substantial differences between the two groups. Pushed workers express sizeable and statistically significant willingness to pay for both sick pay and paid annual leave in most subgroups examined. Pulled workers, by contrast, show lower willingness to accept earnings reductions for formal social protection. The interaction between motivation and current access to benefits provides another analytical

dimension. Among workers who do not hold some form of sick pay or paid annual leave coverage, the gap between pushed and pulled workers is large and statistically significant – pushed workers with no access place the highest valuations on formalising that protection, while pulled workers in the same situation show lower willingness to pay. Among workers who currently have access to either benefit, the pushed/pulled distinction largely disappears: both groups express positive demand for protections they have, and the difference between them is statistically indistinguishable from zero.

One reading of this pattern is that pushed workers' stronger demand for social protection reflects an unmet need. When sick pay or paid annual leave is already available, willingness to pay differs little between pushed and pulled workers. When these benefits are absent, however, pushed workers place substantially greater value on obtaining them. This pattern is consistent with mechanisms linking economic dependence and adverse platform-work experiences to greater insecurity and vulnerability. It also supports an outside-options interpretation: social protection is most valuable to workers who have limited alternatives and are least able to absorb income shocks.

The emerging regulatory frameworks, including the EU Platform Work Directive, will reach pushed and pulled workers alike. Pushed workers currently on self-employed or non-standard contracts stand to gain most – obtaining access to sick pay and paid leave that they genuinely value and are willing to forgo earnings to secure. Pulled workers reclassified into employment, by contrast, face a mismatch between their preferences and the obligations of employee status. A substantial share of this group appears to have chosen platform work because it offers flexibility without the obligations attached to dependent employment. The low barriers to entry that facilitate this choice are, for them, a feature rather than a failing of the institutional arrangement. Mandatory formalisation could therefore induce exit or evasion among these workers who have deliberately selected into unregulated arrangements.

The policy that fails to account for this heterogeneity within the platform workforce may achieve less than projected in terms of coverage while generating compliance costs and displacement effects that fall disproportionately on those who were never its primary target. More targeted approaches—whether through differentiated opt-in mechanisms, income-threshold-based eligibility criteria, or targeted instruments specifically directed at workers in economically precarious positions—may better align regulatory design with the actual structure of preferences revealed by our study.

Literature

- Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. (2023). The value of sick pay. *European Economic Review*, 151, 104314.
- Adermon, A., Hensvik, L., 2022. Gig-jobs: Stepping stones or dead ends? *Labour Economics*, 76, 102171.
- Antonucci, L. (2025). The lived experiences of the welfare state of platform workers: The barriers to accessing social protection in Italy, Sweden and the United Kingdom. *International Journal of Social Welfare*, 34(1), e12708.
- Amit, R., & Muller, E. (1995). "Push" and "pull" entrepreneurship. *Journal of Small Business & Entrepreneurship*, 12(4), 64–80. <https://doi.org/10.1080/08276331.1995.10600505>
- Beckmann, F., Glanz, S., Hoose, F., Topal, S., 2026. Investigating social protection amongst platform workers in Germany: forced individualisation, hybrid income generation and undesired regulation. *Journal of Social Policy* 55, 100–118.
- Beckmann, F., Hoose, F., Obereiner, L., Topal, S., 2024. Casualization of work, free riding and institutional distrust: Explaining social protection preferences of platform workers in Germany. *Zeitschrift für Sozialreform* 70, 225–247.
- Block, J. H., & Wagner, M. (2010). Necessity and opportunity entrepreneurs in Germany: Characteristics and earnings differentials. *Schmalenbach Business Review*, 62(2), 154–174. <https://doi.org/10.1007/BF03396803>
- Boeri, T., Giupponi, G., Krueger, A. B., & Machin, S. (2020). Solo self-employment and alternative work arrangements: A cross-country perspective on the changing composition of jobs. *Journal of Economic Perspectives*, 34(1), 170-195.
- Bonifacio, F., Marcolin, A., 2024. Unpacking the role of workers' heterogeneity in the representation and regulation of platform work. A focus of the case of the Just Eat Takeaway agreement in Italy. *Cuad. relac. labor.* 42, 125–141.
- Bustelo, M., Diaz, A.M., Lafortune, J., Piras, C., Salas, L.M., Tessada, J., 2022. What is the price of freedom? Estimating women's willingness to pay for job schedule flexibility. *Economic Development and Cultural Change* 71, 1179-1211.
- Chen, M.K., Chevalier, J.A., Rossi, P.E., Oehlsen, E., 2019. The Value of Flexible Work: Evidence from Uber Drivers. *Journal of Political Economy* 127, 2735–2794.
- Chen, W.-C., Suri, S., Gray, M.L., 2019. More Than Money: Correlation among Worker Demographics, Motivations, and Participation in Online Labor Market. *Proceedings of the International AAAI Conference on Web and Social Media* 13, 134–145.
- Cirillo, V., Guarascio, D., & Parolin, Z. (2023). Platform work and economic insecurity in Italy. *Structural Change and Economic Dynamics*, 65, 126-138.
- Costantino T., and Gangemi A., (2025) What is the current legal status of riders and platform workers in Italy? Italian Ministry of Labour provides guidance, pending transposition of the EU directive
- De Becker, E., Seo, H., Pulignano, V., & Schoukens, P. (2024). Mapping social protection coverage for platform workers: A comparative analysis of Belgium, Italy and the Netherlands. *European Journal of Social Security*, 26(1), 3-26.
- de Groen, W.P., Kilhoffer, Z., Lenaerts, K., 2018. Employment and working conditions of selected types of platform work [WWW Document]. Eurofound. URL

- <https://www.eurofound.europa.eu/publications/report/2018/employment-and-working-conditions-of-selected-types-of-platform-work> (accessed 11.17.22).
- De Stefano, V., 2015. The Rise of the "Just-in-Time Workforce": On-Demand Work, Crowd Work and Labour Protection in the "Gig-Economy." SSRN Journal.
- Dolado, J. J., Jáñez, Á., & Wellschmied, F. (2025). Riders on the storm (IZA Discussion Paper No. 17740). IZA Institute of Labor Economics. <https://www.jstor.org/stable/resrep70454>
- ETUC (2022). Platform Work and Collective Bargaining: Country Report – Germany. European Trade Union Confederation.
- Fairwork (2024). Fairwork Poland Ratings 2024: Intermediation Undermining Workers' Rights in the Platform Economy. Warsaw, Poland; Oxford, United Kingdom; Berlin, Germany.
- Fairwork (2026) Fairwork Germany Ratings 2026. Oxford, United Kingdom; Berlin, Germany
- Feld, B., Nagy, A., Osman, A., 2022. What do jobseekers want? Comparing methods to estimate reservation wages and the value of job attributes. *Journal of Development Economics* 159, 102978.
- Fossen, F. M., & Büttner, T. J. M. (2013). The returns to education for opportunity entrepreneurs, necessity entrepreneurs, and paid employees. *Economics of Education Review*, 37, 66–84. <https://doi.org/10.1016/j.econedurev.2013.08.005>
- Forde, C., Stuart, M., Joyce, S., Oliver, L., Valizade, D., Alberti, G., Hardy, K., Trappmann, V., Umney, C., Carson, C., 2017. *The Social Protection of Workers in the Platform Economy* 128.
- Ghorpade, Y., Rahman, A. A., & Jasmin, A. (2024). Social insurance for gig workers: Insights from a discrete choice experiment in Malaysia. *International Social Security Review*, 77(3), 3–30.
- Guo, Y., Cui, S., Lu, Z., Wang, S., 2025. Dependence and Precarity in the Gig Economy: A Longitudinal Analysis of Platform Work and Mental Distress. *The British Journal of Sociology* 76, 1169–1187.
- Ilsøe, A., Larsen, T.P., Bach, E.S., 2021. Multiple jobholding in the digital platform economy: signs of segmentation. *Transfer: European Review of Labour and Research* 27, 201–218.
- Kautonen, T., Down, S., Welter, F., Vainio, P., Palmroos, J., Althoff, K., & Kolb, S. (2010). "Involuntary self-employment" as a public policy issue: a cross-country European review. *International Journal of Entrepreneurial Behavior & Research*, 16(2), 112-129.
- Kowalik, Z., Lewandowski, P., Kaczmarczyk, P., 2025. Job Quality Gaps Between Migrant and Native Platform Workers: Evidence From Poland. *New Technology, Work and Employment*, 40: 468-482.
- Lancaster, K.J., 1966. A New Approach to Consumer Theory. *Journal of Political Economy* 74.
- Lewandowski, P., Lipowska, K., Smoter, M., 2026. Mismatch in preferences for working from home – evidence from discrete choice experiments with workers and employers. *ILR Review* 79, 142–172.
- List, J.A., Gallet, C.A., 2001. What Experimental Protocol Influence Disparities Between Actual and Hypothetical Stated Values? *Environmental and Resource Economics* 20, 241–254.
- Martindale, N., Wood, A.J., Burchell, B.J., 2024. What do platform workers in the UK gig economy want? *British Journal of Industrial Relations*, 62, 542–567.
- Mas, A., Pallais, A., 2017. Valuing Alternative Work Arrangements. *American Economic Review* 107, 3722–3759.
- Maury, O., 2023. The Fragmented Labor Power Composition of Gig Workers: Entrepreneurial Tendency and the Heterogeneous Production of Difference. *Critical Sociology*, 50(7-8), 1167-1182.
- Maury, O., 2024. Scenes of life's work: Migrant platform workers' struggles over social reproduction in the context of welfare state bordering in Finland. *Platforms & Society* 1, 29768624241307017.
- McFadden, D., 2001. Economic Choices. *American Economic Review* 91, 351–378.

- Mika, B., Polkowska, D. 2022. Work-on-demand in patchwork capitalism: The peculiar case of uber's fleet partners in Poland. *New Technology, Work and Employment*, 38, 513–528.
- Muszyński, K., Pulignano, V., Domecka, M., Mrozowski, A., 2022. Coping with precarity during COVID-19: A study of platform work in Poland. *International Labour Review* 161, 463–485.
- Newlands, G., 2022. 'This isn't forever for me': Perceived employability and migrant gig work in Norway and Sweden. *Environ Plan A* 0308518X221083021.
- Piasna, A., Zwysen, W., Drahokoupil, J. (2022). The platform economy in Europe. In ETUI, The European Trade Union Institute. <https://www.etui.org/publications/platform-economy-europe>
- Prassl, J., 2018. *Humans as a Service: The Promise and Perils of Work in the Gig Economy*. Oxford University Press, Oxford, United Kingdom.
- Scaccia, L., Marcucci, E., Gatta, V., 2023. Prediction and confidence intervals of willingness-to-pay for mixed logit models. *Transportation Research Part B: Methodological* 167, 54–78.
- Schmidt, J., Bijmolt, T.H.A., 2020. Accurately measuring willingness to pay for consumer goods: a meta-analysis of the hypothetical bias. *J. of the Acad. Mark. Sci.* 48, 499–518.
- Schor, J.B., Attwood-Charles, W., Cansoy, M., Ladegaard, I., Wengronowitz, R., 2020. Dependence and precarity in the platform economy. *Theor Soc* 49, 833–861.
- Sieker, F. (2022). Platform work and access to social protection across major European countries. *Journal of International and Comparative Social Policy*, 38(3), 193-207.
- Traets, F., Sanchez, D.G., Vandebroek, M., 2020. Generating Optimal Designs for Discrete Choice Experiments in R: The idfix Package. *Journal of Statistical Software* 96, 1–41.
- Urzi Brancati, M.C., Pesole, A., Fernandez Macias, M.E., 2020. New evidence on platform workers in Europe, Publications Office of the European Union. Luxembourg.
- Vallas, S., Schor, J.B., 2020. What Do Platforms Do? Understanding the Gig Economy. *Annu. Rev. Sociol.* 46, 273–294.
- Van Landeghem, B., Dohmen, T., Hole, A.R., Künn-Nelen, A., 2024. The value of commuting time, flexibility, and job security: Evidence from current and recent jobseekers in Flanders. *Labour Economics* 91, 102631.
- Vieira, T., 2023. Platform couriers' self-exploitation: The case study of Glovo. *New Technology, Work and Employment* 38, 493–512.
- Whitehead, J.C., Weddell, M.S., Groothuis, P.A., 2016. Mitigating Hypothetical Bias in Stated Preference Data: Evidence from Sports Tourism. *Economic Inquiry* 54, 605–611.
- Wiswall, M., Zafar, B. Preference for the Workplace, Investment in Human Capital, and Gender, *The Quarterly Journal of Economics*, Volume 133, Issue 1, February 2018, Pages 457–507.
- Wood, A.J., Graham, M., Lehdonvirta, V., Hjorth, I., 2018. Good Gig, Bad Big: Autonomy and Algorithmic Control in the Global Gig Economy. *Work, Employment and Society* 33.
- Wood, A.J., Martindale, N., Burchell, B.J., 2025. Beyond the 'Gig Economy': Towards Variable Experiences of Job Quality in Platform Work. *Work, Employment and Society* 39, 1154–1178.
- Zwysen, W., Piasna, A., 2024a. Pushed online: What characteristics of regional offline labour markets influence the expansion of Internet and platform work? *New Technology, Work and Employment* 39, 63–88.
- Zwysen, W., Piasna, A., 2024b. Digital labour platforms and migrant workers: Analysing migrants' working conditions and (over)representation in platform work in Europe, Working Paper, No. 2024.06, European Trade Union Institute (ETUI), Brussels

Appendix

Figure A1. Example Choice Card presented to respondents

	Job Offer A	Job Offer B	No change
Holiday Pay	Yes	No	No
Sick Pay	No	Yes	No
Change in Earnings	-3%	-9%	0%

? Choose one of the following answers

☐ Offer A

☐ Offer B

☐ No change

Source: Own elaboration

Table A1. Share of respondents choosing each alternative, by choice set (CS) and sample source (%)

CS	Norstat			Facebook		
	Alternative I	Alternative II	Status Quo	Alternative I	Alternative II	Status Quo
1	52.4	22.6	25.0	50.0	19.2	30.8
2	41.7	33.3	25.0	44.9	23.1	32.1
3	47.4	27.2	25.4	61.0	9.1	29.9
4	24.0	42.5	33.4	13.0	44.2	42.9
5	26.1	33.4	40.4	18.9	31.1	50.0
6	37.5	39.9	22.6	36.7	33.9	29.4
7	27.7	46.6	25.6	21.7	39.6	38.7
8	35.8	37.3	26.9	34.3	32.4	33.3
9	29.1	39.6	31.3	24.0	42.3	33.7
10	43.6	32.5	23.9	58.3	15.5	26.2

Source: own elaboration based on PWPS.

Table A2. Profile of platform workers across selected survey samples (in %)

	Poland – PPWS (Kowalik et al., 2025)	Germany (Beckmann et al., 2024; Piasna et al., 2022;)	Italy – INAPP-PLUS (Cirillo et al., 2023)
Gender			
Man	90	64	54
Woman	10	36	46
Education			
Low	10	9	37
Middle	62	42	47
High	28	47	16
Age groups			
18-29	55	19	45
30-49	38	57	45
50-60+	7	24	10
Platform work type			
Delivery courier	50	-	22
Taxi-hailing	50	-	26
Cleaning	-	-	24
Other	-	-	28
Migrant Status			
Yes	36	36	2
No	64	64	98

Note: Data on the gender, age, and education of German platform workers are drawn from Beckmann et al. (2024), while information on the share of migrant workers comes from the ETUI Internet and Platform Work Survey (Piasna et al., 2022).

Source: own elaboration based on Kowalik et al., 2025; Beckmann et al., 2024; Piasna et al., 2022; Cirillo et al., 2023.

Table A3. Reasons for starting platform work by country (in %)

	Flexibility	Preference	Extra money	Easy recruitment	Lack of opportunities	Loss of income
Germany	51.2	36.0	21.7	21.3	26.7	29.5
Italy	44.9	26.5	24.3	16.5	34.6	15.1
Poland	59.1	39.7	40.9	32.8	28.7	13.8
Total	51.5	33.8	28.7	23.3	30.1	19.4

Note: The table shows the share of respondents in each country who reported a given reason for starting platform work. For instance, 51.2% of respondents in Germany declared flexibility as one of their reasons for taking up platform work. Respondents could select multiple reasons, so percentages within each country do not add up to 100%.

Source: Own calculations based on PWPS.

Table A4 Willingness to pay for sick pay and paid annual leave: pushed-pulled differences in three countries separately (% of income; income-random mixed logit, separate subgroup estimation; 95% CI)

	N	WTP for sick pay		WTP for paid holiday		Share of workers with WTP for sick pay above (in %)		Share of workers with WTP for paid annual leave above (in %)	
Group		Mean (95% CI)	SD (SE)	Mean (95% CI)	SD (SE)	> 0	> 9th decile (pooled, 14.3%)	> 0	> 9th decile (pooled, 14.4%)
Germany									
All	258	2.32*** (1.06; 3.58)	5.62 (1.18)	2.83*** (1.59; 4.08)	4.96 (1.11)	66.0	1.7	71.6	1.0
Pushed	90	2.76** (0.65; 4.87)	5.97 (1.42)	3.27*** (1.49; 5.06)	5.40 (1.33)	67.8	2.7	72.8	2.0
Pulled	168	2.09*** (0.72; 3.45)	5.51 (1.17)	2.61*** (1.21; 4.00)	4.77 (1.13)	64.8	1.3	70.8	0.7
Wald test		$\chi^2=0.35$ (p=0.553)		$\chi^2=0.49$ (p=0.482)					
Italy									
All	272	3.90*** (1.92; 5.88)	10.43 (2.24)	6.11*** (3.93; 8.28)	11.55 (2.86)	64.6	16.0	70.1	23.7
Pushed	92	6.40*** (3.46; 9.34)	13.27 (3.18)	7.53*** (4.75; 10.30)	13.60 (3.56)	68.5	27.6	71.0	30.7
Pulled	180	2.62** (0.38; 4.86)	9.14 (2.04)	5.38*** (3.00; 7.75)	10.48 (2.74)	61.3	10.1	69.6	19.5
Wald test		$\chi^2=5.21^{**}$ (p=0.022)		$\chi^2=2.41$ (p=0.120)					
Poland									
All	247	5.54*** (3.40; 7.68)	9.77 (1.81)	5.70*** (3.78; 7.62)	8.39 (1.60)	71.5	18.5	75.2	15.0
Pushed	45	8.78*** (5.49; 12.08)	12.27 (2.27)	7.47*** (4.25; 10.69)	9.91 (1.98)	76.3	32.7	77.5	24.3
Pulled	202	4.91*** (2.84; 6.99)	9.46 (1.60)	5.46*** (3.62; 7.29)	8.26 (1.49)	69.8	16.1	74.6	14.0
Wald test		$\chi^2=6.94^{***}$ (p=0.008)		$\chi^2=1.79$ (p=0.181)					

*Note: Income-random mixed logit (cmxtnmixlogit), robust standard errors, no case-level controls. Models for pushed and pulled estimated separately. The 9th-decile thresholds are fixed across panels (sick pay: 14.284%; paid holiday: 14.385%). . *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*

Table A5 Willingness to pay for sick pay and paid annual leave: separate models for pushed and pulled workers (% of income; income-random mixed logit, separate subgroup estimation; 95% CI)

N		WTP for sick pay		WTP for paid annual leave		Share of workers with WTP for sick pay above (in %)		Share of workers with WTP for paid annual leave above (in %)	
Group		Mean (95% CI)	SD (SE)	Mean (95% CI)	SD (SE)	> 0	> 9th decile (pooled, 14.3%)	> 0	> 9th decile (pooled, 14.4%)
Full sample									
All	777	3.71*** (2.75; 4.67)	8.25 (0.95)	4.57*** (3.61; 5.54)	7.66 (0.95)	67.4	10.0	72.5	10.0
Pushed	227	5.26*** (2.93; 7.59)	11.12 (2.48)	6.12*** (3.92; 8.33)	9.55 (2.55)	68.2	20.8	73.9	19.3
Pulled	550	3.29*** (2.25; 4.33)	7.34 (1.02)	4.15*** (3.08; 5.23)	7.07 (1.02)	67.3	6.7	72.2	7.4
No access to sick pay									
All	458	3.83*** (2.64; 5.03)	7.81 (1.07)	4.95*** (3.68; 6.23)	7.87 (1.12)	68.8	9.0	73.5	11.5
Pushed	114	6.09*** (3.32; 8.86)	9.51 (2.43)	6.84*** (4.10; 9.59)	8.77 (2.43)	73.9	19.4	78.2	19.5
Pulled	344	3.22*** (1.90; 4.53)	7.21 (1.25)	4.42*** (2.97; 5.88)	7.50 (1.35)	67.2	6.2	72.2	9.2
Has access to sick pay									
All	319	3.83*** (2.10; 5.56)	9.70 (1.96)	4.27*** (2.73; 5.82)	7.53 (1.75)	65.4	14.1	71.5	9.0
Pushed	113	4.05* (-0.18; 8.29)	13.38 (5.56)	5.05*** (1.41; 8.69)	10.32 (5.71)	61.9	22.2	68.8	18.3
Pulled	206	3.72*** (1.87; 5.58)	8.20 (1.96)	3.94*** (2.25; 5.64)	6.51 (1.62)	67.5	9.9	72.8	5.4
No access to paid annual leave									
All	486	4.05*** (2.84; 5.26)	8.09 (1.13)	4.88*** (3.64; 6.12)	7.98 (1.15)	69.2	10.3	72.9	11.7
Pushed	118	5.74*** (3.02; 8.46)	9.11 (2.40)	6.39*** (3.78; 8.99)	8.91 (2.33)	73.6	17.4	76.3	18.5
Pulled	368	3.57*** (2.23; 4.91)	7.70 (1.26)	4.46*** (3.07; 5.84)	7.54 (1.31)	67.9	8.2	72.3	9.4
Has access to paid annual leave									
All	291	3.46*** (1.77; 5.15)	8.91 (1.76)	4.35*** (2.76; 5.95)	7.16 (1.71)	65.1	11.2	72.8	8.1
Pushed	109	4.82* (-0.19; 9.84)	15.37 (7.03)	5.86*** (1.41; 10.31)	11.99 (7.47)	62.3	26.9	68.8	23.9
Pulled	182	3.08*** (1.38; 4.78)	6.91 (1.66)	3.82*** (2.13; 5.52)	6.34 (1.47)	67.2	5.3	72.7	4.8
Platform as main income source (>50%)									
All	341	4.41*** (2.78; 6.03)	9.64 (1.77)	4.36*** (2.85; 5.86)	8.40 (1.63)	67.6	15.3	69.8	11.6
Pushed	120	5.40*** (2.17; 8.64)	11.38 (3.67)	4.92*** (2.31; 7.53)	8.11 (2.93)	68.2	21.8	72.8	12.2

Pulled	221	3.87*** (2.04; 5.71)	8.62 (1.92)	4.05*** (2.23; 5.88)	8.32 (1.90)	67.4	11.4	68.7	10.7
Platform not main income source (<=50%)									
All	436	3.27*** (2.08; 4.46)	7.41 (1.09)	4.81*** (3.52; 6.09)	7.25 (1.17)	67.0	6.9	74.6	9.3
Pushed	107	4.86*** (1.43; 8.30)	9.97 (3.11)	7.59*** (3.68; 11.50)	10.84 (4.34)	68.7	17.2	75.8	26.6
Pulled	329	2.97*** (1.74; 4.19)	6.57 (1.10)	4.23*** (2.95; 5.51)	6.34 (1.10)	67.4	4.3	74.8	5.5
Experienced accident or violence in platform work									
All	321	4.56*** (2.55; 6.57)	12.42 (2.36)	6.20*** (4.21; 8.19)	11.24 (2.54)	64.3	21.7	70.9	23.3
Pushed	121	4.13** (0.22; 8.04)	13.20 (4.14)	6.97*** (3.50; 10.45)	9.62 (4.38)	62.3	22.1	76.6	22.1
Pulled	200	4.72*** (2.39; 7.06)	11.43 (2.81)	5.73*** (3.33; 8.13)	11.16 (2.96)	66.0	20.1	69.6	21.9
No accident or violence in platform work									
All	456	3.49*** (2.39; 4.59)	6.64 (0.98)	4.09*** (2.98; 5.19)	6.35 (0.98)	70.0	5.2	74.0	5.2
Pushed	106	6.10*** (2.86; 9.35)	9.43 (3.15)	5.59*** (2.67; 8.50)	8.56 (2.90)	74.1	19.3	74.3	15.2
Pulled	350	2.87*** (1.71; 4.02)	6.19 (1.08)	3.78*** (2.55; 5.02)	5.99 (1.06)	67.8	3.3	73.6	3.8
Germany									
All	258	2.32*** (1.06; 3.58)	5.62 (1.18)	2.83*** (1.59; 4.08)	4.96 (1.11)	66.0	1.7	71.6	1.0
Pushed	90	1.88 (-1.10; 4.86)	8.09 (2.68)	3.01** (0.54; 5.48)	4.76 (2.32)	59.2	6.2	73.6	0.8
Pulled	168	2.59*** (1.27; 3.90)	4.65 (1.26)	2.77*** (1.37; 4.18)	4.93 (1.17)	71.1	0.6	71.3	0.9
Italy									
All	272	3.90*** (1.92; 5.88)	10.43 (2.24)	6.11*** (3.93; 8.28)	11.55 (2.86)	64.6	16.0	70.1	23.7
Pushed	92	6.06*** (3.07; 9.05)	10.26 (3.08)	7.35*** (4.18; 10.52)	9.24 (3.65)	72.3	21.1	78.7	22.3
Pulled	180	2.67** (0.24; 5.10)	9.88 (2.88)	5.32*** (2.55; 8.09)	12.00 (3.84)	60.6	12.0	67.1	22.5
Poland									
All	247	5.54*** (3.40; 7.68)	9.77 (1.81)	5.70*** (3.78; 7.62)	8.39 (1.60)	71.5	18.5	75.2	15.0
Pushed	45	12.96** (1.14; 24.77)	19.51 (14.49)	10.90** (1.73; 20.06)	18.53 (11.50)	74.7	47.3	72.2	42.5
Pulled	202	4.25*** (2.31; 6.19)	7.45 (1.64)	4.68*** (2.84; 6.52)	6.19 (1.46)	71.6	8.9	77.5	5.9

Note: . Pushed and pulled workers are estimated in separate models; therefore, all coefficients and random-coefficient variances may differ between the two groups. The 9th-decile thresholds are re-estimated from the corrected full-population model and fixed across panels (sick pay: 14.284%; paid annual leave: 14.385%). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Source: own estimations based on PWPS

Table A6. Characteristics of pushed and pulled platform workers: alternative definition (in %)

Characteristic	Pushed	Pulled	Difference
Age			
18-24	8.4	11.3	-2.9
25-29	7.8	14.0	-6.3***
30-34	15.8	15.2	+0.6
35-39	19.1	13.8	+5.3**
40-44	13.4	14.3	-0.8
45-49	11.3	10.6	+0.8
50-54	10.4	8.7	+1.7
55-59	9.0	4.8	+4.1**
60 or older	4.8	7.4	-2.6
Woman	36.9	33.5	+3.4
University education	38.4	51.7	-13.3***
Migrant	10.1	11.3	-1.2
Country			
Germany	38.3	29.2	+9.1***
Italy	36.9	33.6	+3.3
Poland	24.8	37.2	-12.4***
Has access to paid annual leave	45.4	31.3	+14.1***
Has access to sick pay	48.7	35.2	+13.5***
Work-related incident	53.4	32.0	+21.4***
Platform income above 50% of total	53.1	36.8	+16.3***
Hours worked per week (in hours)	36.8	28.5	+8.3***
Job satisfaction	64.0	74.3	-10.3***
Number of respondents	339	438	

*Note: Pushed includes workers whose push-minus-pull score is nonnegative and workers with no classified reason for taking up platform work; Pulled includes workers with a negative score. Percentage signs identify percentage rows; Hours worked and Job satisfaction are group means. Job satisfaction is binary: responses 1-2 are Unsatisfied (0), and responses 3-4 are Satisfied (1). The Difference column reports the pushed-minus-pulled gap (in percentage points for percentage rows) and its statistical significance from a two-sample t-test of equal group means: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*

Source: Own estimations based on PWPS.

Table A7. Willingness to pay for sick pay and paid annual leave – alternative pushed definition
 (% of income; income-random mixed logit, no case-level controls; 95% CI)

Table 1: WTP for sick pay and annual leave, by access to sick pay and annual leave, by gender, by education, by income, by age, by marital status, by household size, by household income, by household type, by household tenure, by household tenure type, by household tenure type type, by household tenure type type type, by household tenure type type type type, by household tenure type type type type type, by household tenure type type type type type type, by household tenure type type type type type type type, by household tenure type type type type type type type type, by household tenure type type type type type type type type type, by household tenure type type type type type type type type type, by household tenure type type type type type type type type type type, by household tenure type type type type type type type type type type, by household tenure type type type type type type type type type type type, by household tenure type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type type type type, by household tenure type type type type type type type type type type type type type type type type type type type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type, by household tenure type type type type type									
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Has access to paid annual leave									
All	291	3.46*** (1.77; 5.15)	8.91 (1.76)	4.35*** (2.76; 5.95)	7.16 (1.71)	65.1	11.2	72.8	8.1
Pushed	154	4.98*** (2.63; 7.33)	10.49 (2.22)	4.84*** (2.83; 6.85)	7.82 (1.98)	68.3	18.7	73.2	11.1
Pulled	137	1.83* (-0.34; 4.00)	7.77 (1.55)	4.05*** (2.10; 6.00)	6.71 (1.84)	59.3	5.5	72.7	6.2
Wald test		$\chi^2=4.80^{**}$ ($p=0.029$)		$\chi^2=0.47$ ($p=0.491$)					
Platform as main income source (>50%)									
All	341	4.41*** (2.78; 6.03)	9.64 (1.77)	4.36*** (2.85; 5.86)	8.40 (1.63)	67.6	15.3	69.8	11.6
Pushed	180	5.89*** (3.74; 8.04)	11.31 (2.16)	5.66*** (3.75; 7.56)	9.98 (1.97)	69.9	22.9	71.5	19.1
Pulled	161	2.84*** (0.92; 4.77)	8.26 (1.54)	3.01*** (1.23; 4.78)	6.94 (1.48)	63.5	8.3	66.7	5.1
Wald test		$\chi^2=6.25^{**}$ ($p=0.012$)		$\chi^2=6.03^{**}$ ($p=0.014$)					
Platform not main income source (<=50%)									
All	436	3.27*** (2.08; 4.46)	7.41 (1.09)	4.81*** (3.52; 6.09)	7.25 (1.17)	67.0	6.9	74.6	9.3
Pushed	159	5.02*** (3.17; 6.88)	8.80 (1.42)	5.55*** (3.80; 7.30)	8.03 (1.41)	71.6	14.6	75.5	13.6
Pulled	277	2.29*** (0.96; 3.63)	6.94 (1.02)	4.54*** (3.19; 5.90)	7.03 (1.14)	63.0	4.2	74.1	8.1
Wald test		$\chi^2=8.54^{***}$ ($p=0.003$)		$\chi^2=1.70$ ($p=0.193$)					
Experienced accident or violence in platform work									
All	321	4.56*** (2.55; 6.57)	12.42 (2.36)	6.20*** (4.21; 8.19)	11.24 (2.54)	64.3	21.7	70.9	23.3
Pushed	181	6.23*** (3.57; 8.89)	14.02 (2.83)	6.82*** (4.47; 9.16)	11.96 (2.79)	67.2	28.3	71.6	26.3
Pulled	140	2.46* (-0.27; 5.18)	10.88 (2.07)	5.62*** (3.08; 8.17)	10.38 (2.59)	58.9	13.9	70.6	19.9
Wald test		$\chi^2=4.54^{**}$ ($p=0.033$)		$\chi^2=0.69$ ($p=0.405$)					
No accident or violence in platform work									
All	456	3.49*** (2.39; 4.59)	6.64 (0.98)	4.09*** (2.98; 5.19)	6.35 (0.98)	70.0	5.2	74.0	5.2
Pushed	158	5.28*** (3.68; 6.87)	8.04 (1.25)	5.30*** (3.77; 6.82)	7.47 (1.20)	74.4	13.1	76.1	11.2
Pulled	298	2.56*** (1.41; 3.71)	5.98 (0.88)	3.47*** (2.33; 4.60)	5.83 (0.92)	66.6	2.5	72.4	3.0
Wald test		$\chi^2=13.28^{***}$ ($p=0.000$)		$\chi^2=7.15^{***}$ ($p=0.007$)					

Germany									
All	258	2.32*** (1.06; 3.58)	5.62 (1.18)	2.83*** (1.59; 4.08)	4.96 (1.11)	66.0	1.7	71.6	1.0
Pushed	130	3.28*** (1.37; 5.18)	6.38 (1.48)	2.90*** (1.31; 4.49)	5.03 (1.26)	69.6	4.2	71.8	1.1
Pulled	128	1.35* (-0.20; 2.90)	5.12 (1.10)	2.87*** (1.28; 4.45)	5.00 (1.20)	60.4	0.6	71.7	1.1
Wald test		$\chi^2=3.12^*$ ($p=0.077$)		$\chi^2=0.00$ ($p=0.972$)					
Italy									
All	272	3.90*** (1.92; 5.88)	10.43 (2.24)	6.11*** (3.93; 8.28)	11.55 (2.86)	64.6	16.0	70.1	23.7
Pushed	125	6.53*** (3.76; 9.30)	13.38 (3.20)	7.66*** (4.93; 10.39)	13.78 (3.60)	68.7	28.1	71.1	31.3
Pulled	147	1.69 (-0.70; 4.09)	8.45 (1.82)	4.81*** (2.38; 7.25)	9.69 (2.57)	57.9	6.8	69.0	16.2
Wald test		$\chi^2=9.27^{***}$ ($p=0.002$)		$\chi^2=4.28^{**}$ ($p=0.039$)					
Poland									
All	247	5.54*** (3.40; 7.68)	9.77 (1.81)	5.70*** (3.78; 7.62)	8.39 (1.60)	71.5	18.5	75.2	15.0
Pushed	84	8.37*** (5.51; 11.24)	11.88 (2.12)	8.04*** (5.37; 10.71)	10.35 (1.92)	76.0	30.9	78.1	27.0
Pulled	163	4.17*** (2.01; 6.33)	9.01 (1.52)	4.67*** (2.88; 6.47)	7.65 (1.39)	67.8	13.1	72.9	10.2
Wald test		$\chi^2=9.41^{***}$ ($p=0.002$)		$\chi^2=7.51^{***}$ ($p=0.006$)					

Note: No case-level controls. Reference q90 from a full-sample income-random mixed logit without interaction terms, used as fixed thresholds across all specifications. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table reports the results from a robustness check in which we applied an alternative pushed definition: someone is pushed if they chose at least as many push as pull factors ($neg_pos_ratio \geq 0$). Main analysis uses $neg_pos_ratio > 0$.

Source: Own estimations based on PWPS.

Table A8. Comparison of estimates of WTP between models with and without control variables
 (% of income; income-random mixed logit, full sample)

	With control variables	Without control variables
<i>Sick pay</i>		
WTP mean	4.41%	3.94%
SD of WTP	9.44	8.53
90th percentile (q90)	16.50%	14.86%
<i>Paid annual leave</i>		
WTP mean	5.32%	4.75%
SD of WTP	8.82	7.86
90th percentile (q90)	16.63%	14.82%
N (respondents)	744	744

Note: Both models use cmxtmixlogit with three independent normally distributed random parameters (sick pay, paid holiday, and income loss) and robust standard errors. The model with control variables includes age group, gender, university education, migrant status, country, access to sick pay, access to paid leave, any work-related incident, and platform work providing more than 50% of income. Of the 777 respondents in the corrected source data, 33 are excluded because at least one control is missing.

Source: Own estimations based on PWPS.



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