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Abstract

We study preferences for remote work using a large-scale discrete choice study with 10,000 workers and 1,500 employers in Poland. Workers value remote work more than employers. On average, workers are willing to sacrifice 3.2% of earnings for remote work, with hybrid work from home (WFH) for 2-3 days preferred over 5 days. Employers expect a 21.0% wage cut from remote workers. This 17.8 pp gap between employers' and workers' valuations reflects employers' concerns over productivity loss (13.8 pp) and costly efforts to manage remote workers (4.0 pp). Only 25-35% of employers, those with positive perceptions of remote work productivity, show valuations of remote work that align with workers' willingness to pay for it.

Keywords: working from home, remote work, discrete choice experiment, willingness to pay

JEL: J21, J31, J81

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1. Introduction

The rise in remote work during the COVID-19 pandemic may normalise working from home (WFH) and turn it into a widely available job amenity. The share of workers who can perform most tasks remotely has increased (Adams-Prassl et al., 2022) and firms invested in technologies conducive to remote work (Barrero et al., 2021)Remote workers can benefit from greater flexibility, reduced commuting, and improved work-life balance, especially among couples (Bryan and Sevilla, 2017), as well as lower attrition and higher job satisfaction (Bloom et al., 2022). Firms can benefit from higher productivity and lower office costs (Barrero et al., 2021). However, WFH can also be associated with more overtime hours (Arntz et al., 2022), leading to lower psychological well-being and work-family conflicts (Yang et al., 2023). It can reduce peer feedback (Emanuel et al., 2022), hinder the acquisition and sharing of new information (Yang et al., 2021), and diminish the chances of promotion (Emanuel and Harrington, 2023). WGH may increase the productivity of middle-skilled workers (Bloom et al., 2015; Emanuel and Harrington, 2023), but it may lower the productivity of high-skilled workers (Gibbs et al., 2023; Künn et al., 2022). An important question is how workers and firms share these benefits and costs. First, are workers willing to forego other job amenities, especially wages, for the option to work from home? Second, do employers' valuation of workers' benefits from WFH align with workers' valuation, so the demand for WFH jobs meets their supply which is necessary for the widespread adoption of remote work?

We address these questions by conducting two pre-registered discrete choice experiments to estimate workers' and employers' preferences for working from home. We ran the experiments in Poland, a fast-growing, high-income economy with a low incidence of WFH and job flexibility before the pandemic. In 2019, the share of workers who usually work from home was 4.6% in Poland (5.4% in the EU). In 2020, this share doubled to 8.9% but remained below the EU average of 12.0% (Eurostat). At the same time, Poland was severely affected by the COVID-19 pandemic: in 2020-2021, the cumulative excess mortality rate in the country was the third-highest in the EU (Eurostat). Thus, Poland is a compelling case for studying preferences regarding working from home.

Our first contribution is to provide evidence of workers' and employers' preferences regarding working from home. We ran two discrete choice survey experiments. First, to study the preferences of more than 10,000 workers regarding hypothetical job offers that differed in wages and the option to WFH. Second, to study the preferences of more than 1,500 employers regarding hypothetical job candidates who differed in wage expectations and demands to WFH. The discrete choice approach has advantages over traditional surveys, as it requires participants to make trade-offs between different options. It has often been used to estimate workers' willingness to pay (WTP) for flexible working arrangements.[1] The novelty of our study is to investigate both the supply and demand sides consistently. Also, we ran the experiments during/post the COVID-19 pandemic, when WFH morphed from a privilege of selected, usually well-educated workers, to a widely adopted work pattern. To ensure that WFH was a realistic option in our experiments, we included workers in professional, managerial, clerical, or sales and services

[1]Previous studies using discrete choice experiments found that people value flexibility in the workplace, and may give up a portion of their wages for the option to work from home (He et al., 2021; Maestas et al., 2018; Mas and Pallais, 2017; Datta, 2019), or for flexible time schedules (Bustelo et al., 2023; Felfe, 2012). There is also evidence that the preference to work from home tends to be higher among married individuals (He et al., 2021) and college-educated workers (Maestas et al., 2018).

occupations that can be done from home (Table A2 in Appendix A), and companies that hire workers in these occupations. In 2020, these occupations constituted over 50% of employment in Poland.[2]

We find a large discrepancy between workers' and employers' preferences toward WFH. We estimate that, on average, workers were willing to sacrifice 3.2% of their earnings for the option to work from home, preferring WFH 2-3 days per week (hybrid work) rather than the whole week (fully remote). However, employers' valuations of the WFH option were substantially above those of workers. On average, employers expected a wage cut of 21.0% to select a candidate who demands WFH (16.4% for hybrid work, 25.3% for fully remote). The resulting gap in workers' and employers' valuations of WFH amounts to 17.8 pp. We attribute 13.8 pp. to managers' estimates of productivity loss resulting from WFH, and 4 pp. to their valuations of additional managerial and monitoring efforts related to WFH. Aksoy et al. (2022) also found a gap between workers' preferences for WFH and employers' plans, based on worker surveys in 27 high- and middle-income countries, including Poland.[3]

Our second contribution is to document substantial heterogeneity in preferences for WFH. We show that women were more willing to pay for it than men (4.4% vs 1.6%), especially when presented with the option of WFH for 2-3 days per week (7.5% vs 3.3%). We also find that commuting time mattered, as workers with commutes longer than 30 minutes were willing to pay for WFH more than those with short commutes (4.4 - 5.1% vs 2.5%). At the same time, employers' preferences to accept a candidate who prefers WFH did not depend on workers' gender or commuting time. Finally, we find that workers in non-routine analytical occupations were willing to sacrifice 4.6% of earnings for WFH, followed by workers in routine occupations (3.5%), while workers in non-routine personal occupations were not willing to forego earnings for WFH. Employers were more willing to hire WFH candidates in non-routine cognitive occupations than in routine occupations (15.9-18.8% vs 24.5%). Routine occupations are often classified as offshorable; monitoring them remotely is easier than monitoring non-routine jobs (Blinder and Krueger, 2013). Employers' stronger reluctance to hire WFH workers in routine occupations – as compared with non-routine occupations that require problem-solving or guiding other people – may appear paradoxical. However, managers may perceive WFH as a perk they prefer to grant workers in non-routine occupations.

Our third contribution is to provide evidence on the role of managerial attitudes towards WFH, previous experience with remote work, and the quality of talent management in a company. Managers who thought WFH is at least as productive as on-site work and those who found WFH beneficial for their company were much more willing to hire WFH workers than employers with negative perceptions of WFH. Their valuations of WFH aligned with those of workers, but they constituted only a minority (25-35%) of managers. Importantly, while these managers tended to work remotely and in firms that used WFH before the COVID-19 pandemic, positive attitudes toward remote work cannot be explained by characteristics such as managers' education level, sector or firm-size. Moreover, differences related to these attitudes exist within sectors and firms of different sizes. Managers' positive views of WFH may suggest a better ability to manage remote workers, as better bosses improve worker productivity (Lazear et al.,

[2] Previous studies investigated either specific groups, such as highly educated workers in the IT sector (He et al., 2021) or call centre applicants (Mas and Pallais, 2017); or nationally representative samples (Datta, 2019; Maestas et al., 2018). The first approach is more accurate but has limited external validity. The second approach provides estimates that are representative of the working population, but that may be biased by the inclusion of occupations that cannot be performed from home.

[3] Aksoy et al. (2022) quantified the value of WFH for workers and the gaps between workers' preferred number of weekly WFH days and employers' plans, using workers' declarations. We assess workers' and employers' valuations of WFH as the elasticity of substitution between a non-pecuniary amenity (WFH) and earnings, using randomised, discrete-choice experiments.

2015) and tend to rate workers higher (Frederiksen et al., 2020). However, even managers who perceive WFH positively and work in firms with high talent management quality are not willing to hire fully remote workers. Despite the optimism about the shift toward working from home (Barrero et al., 2021), we find widespread adoption of WFH as realistic in the minority of firms, with hybrid work preferred over fully remote. This is mostly due to the negative perception of WFH productivity by most managers and difficulties in managing remote workers.

The second section presents the study's design, sample characteristics, and descriptive statistics. The third section outlines econometric methodology. The fourth section introduces our results. The fifth section concludes.

2. Data and descriptive statistics

2.1. Experimental framework

We conducted two discrete choice survey experiments based on vignettes to elicit workers' preferences for working from home and employers' preferences for hiring candidates who want to work from home.

The worker survey involved workers in occupations that can be done from home (Dingel and Neiman, 2020), precisely the following major groups of the International Standard Classification of Occupations from 2008 (ISCO-08): managers (ISCO 1), professionals (except for health professionals, ISCO 2), technicians and associate professionals (except for health associate professionals, ISCO 3), clerical support workers (ISCO 4), and service and sales workers (ISCO 5). Table A2 in Appendix A presents the detailed list of occupations included. The employer survey involved company owners, managers, directors, or HR workers responsible for hiring decisions. We restricted the sample to individuals who, in the last 12 months before the survey, hired at least one worker in an occupation that can be done from home – these were the same occupations as in the worker survey.

In the experiment to elicit workers' preferences for WFH, we showed participants five screens with vignettes, preceded by an explanation of how to understand 'work from home' and a few examples (Tables A3-A4 in Appendix A). On each screen, there were two job offers. Each job offer had four attributes: occupation, working hours, ability to work from home, and wages. Each pair of offers varied regarding two attributes: (i) the option to work from home and (ii) earnings. Job offer A was on an office-based job (WFH not possible), and the wage equalled the wage that each participant provided earlier in the survey. Job offer B allowed participants to WFH either five days a week or 2-3 days a week (randomised with equal probabilities). We randomised the wage in offer B (uniform distribution) in the range of $\{-24\%, -20\%, -16\%, \dots, 0, \dots, 16\%, 20\%, 24\%\}$ deviations from the wage in offer A. Table 1 summarises the vignettes' attributes and values. Table A5 in Appendix A presents an example of a vignette.

Table 1. Vignettes' attributes and specifications

Attributes	Values	
	Job offer A	Job offer B
Occupation	Occupation indicated by study participants in the survey	
Work hours	Full-time position. Work from Monday to Friday from 9 a.m. to 5 p.m.	
Ability to work from home	Cannot work from home	(1) Work from home 2 or 3 days a week (2) Work from home 5 days a week. No onsite work.
Wage	Wage indicated by study participants in the survey	The difference in comparison to job offer A: {-24%, -20%, -16%, -12%, -8%, -4%, 0%, +4%, +8%, +12%, +16%, +20%, +24%}

Source: Own elaboration.

In the experiment to elicit employers' preferences for WFH, we showed participants five screens with vignettes, definitions, and examples of WFH. On each screen, we presented two candidates. Each candidate had eight attributes: gender, age, occupation, years of experience in similar occupations, commute time, preferred working hours, preference for working from home, and wage expectations. Each pair of candidates varied regarding only two attributes: the demand for WFH and the expected wage. Candidate A wanted to work in the office and earn a wage equal to the average wage in a given occupation.[4] Candidate B wanted to work from home either five days a week or 2-3 days a week (randomised with equal probabilities). We randomised the wage expectation of candidate B (uniform distribution) in the range of $\{-24\%, -20\%, -16\%, \dots, 0, \dots, 16\%, 20\%, 24\%\}$ deviations from the wage expectation of candidate A. Table 2 summarises the vignettes' attributes and values.

Table 2. Vignettes' attributes and specifications

Attributes	Values	
	Candidate A	Candidate B
Occupation	As chosen by study participants – occupations employed in their company	
Gender	Men/Women	
Age	29; 42; 57	
Job experience in a similar position	<3 years; 3-5 years; 6-10 years; >10 years	
Commuting time	< 30 min; 30 – 60 min.; > 60 min	
Work hours	Full-time position. Work from Monday to Friday from 9 a.m. to 5 p.m.	
Willingness to work from home	Wants to work from the office	(1) Wants to work from home 2 or 3 days a week (2) Wants to work from home 5 days a week
Wage expectations	The average wage in the chosen occupation	The difference in comparison to candidate A: {-24%, -20%, -16%, -12%, -8%, -4%, 0%, +4%, +8%, +12%, +16%, +20%, +24%}

Source: Own elaboration.

Our experiments received ethics approvals from the Rector's Committee for Ethics of Research with Human Participants at the University of Warsaw (decision 88/2021 for experiment with workers, 125/2022 for experiment with employers). We pre-registered the experiments in the American Economic Association's registry for randomised controlled trials (RCT IDs: AEARCTR-0007373 and AEARCTR-0008796, respectively[5]).

2.2. Data collection

We used a Computer-Assisted Web Interviewing (CAWI) technique in both experiments. We surveyed workers in July and August 2021 and employers in May and June 2022. We cooperated with an external research company responsible for recruiting the study participants from the independent nationwide research panel (named Ariadna)

[4] Based on the Structure of wages and salaries by occupations in October 2021 published by Statistics Poland.

[5] The experiment with workers also included a health-messaging intervention. The results of the health-messaging intervention are presented in another paper.

and administering the survey.[6] The participants earned loyalty points they could exchange for non-cash rewards, such as sale coupons. All participants were between the ages of 20 and 64.[7]

The participants in the experiment with workers were employed or actively looking for a job. They lived in a city of at least 100,000 inhabitants or in a location within a 45-minute commute of such a city. We included people working (for at least 20 hours per week) or willing to work (for at least 20 hours per week) in occupations that can be done from home (Table A2 in Appendix A). The study participants selected occupations at the 4-digit ISCO-08 level, with an autocomplete form suggesting occupations that match the description typed by participants (the pilot showed that this approach is optimal for participants). To ensure the sample was representative, we set quotas for key socio-demographic and geography variables (gender, age, educational level, municipality size, and region). We collected basic information about the participants' socio-demographic characteristics in the first part of the survey. Then, we introduced a discrete choice framework and asked all participants to state their preferences regarding hypothetical job offers. The participants in the experiment with employers were company owners, managers, directors, or HR employees responsible for hiring decisions. In the last 12 months, they hired at least one worker in an occupation that can be done from home (Table A2 in Appendix A). To ensure the sample was representative, we set quotas for key socio-demographic and geography variables (gender, age, educational level, region).

Since the participants may act differently in a survey than in real life, we accounted for two key sources of bias in discrete choice experiments: inattention and 'hypothetical bias'. To measure inattention, we asked the participants to solve two simple equations ('2+2', '20-7'). Out of 11,166 participants in the experiment with workers, only 65 (0.6%) gave the wrong answer to any of these questions. We conclude that the study was not biased by the participants' inattention, as this number was too low to affect the results. In the experiment with employers, there was one trap question ('2+2'), and only participants who gave a correct answer qualified for the study.

We followed a two-step procedure that Datta (2019) proposed to measure hypothetical bias. First, to emphasize the real-life importance of the study, we informed the participants that we would present the study's results to Polish policymakers (which was true). Second, we included a follow-up question after each vignette and asked the participants to indicate their confidence level in their choices on a 0-100 scale. Overall, the participants were quite confident in their choices: in the experiment with workers, the median confidence level was 90 points, the first quartile was 75, and the first decile was 60. In the experiment with employers, the median confidence level was 83

[6] The Nationwide Research Panel Ariadna has over 300 000 registered users. Their socio-demographic structure corresponds with the structure of Polish Internet users. They are verified by a postal address, ensuring unique users and real persons in the panel. By taking surveys, users collect points they can exchange for non-cash gifts delivered to their home addresses. An annual audit by an independent auditor (Polish Association of Public Opinion and Marketing Research Firms) assesses the quality of the research services. The panel is certified with a valid Interviewer Quality Control Program certificate. The company follows the international Code of Marketing and Social Research Practice (the International Chamber of Commerce/ESOMAR).

[7] We ran a pilot survey to evaluate the survey software's quality and the questions' clarity. 332 participants completed it. We conducted online interviews with nine study participants to get more detailed insights into the participants' reactions. The interviewed individuals filled out a questionnaire in the presence of a research team member. Afterwards, they shared their opinion about the survey. The feedback we received helped us to improve the questionnaire.

points, the first quartile was 70, and the first decile was 58 (Table A1 in Appendix A). Hence, we think our experiment provided a good approximation of real-life choices.[8]

2.3. Sample characteristics

We recruited 11,116 workers and 1550 employers. The worker sample structure in terms of demographic characteristics, educational level, and occupations correspond with the population of workers aged 20-64 employed in occupations ISCO 1 to 5 (Table 3). Slightly over half of the study participants (56.1%) had a university degree, in line with the share in the reference population. Our sample had a slightly lower share of women than the general population (52.5% vs 56.4%), a higher share of people aged 20-34 (40.6% vs 32.0%), a lower share of people aged 35-49 (37.6% vs 45.7%), and the same share of people aged 50-64 (21.8% vs 22.3%). We also had an overrepresentation of workers in routine occupations (56.0% vs 48.0%) compared to the general population structure in teleworkable jobs.[9] Among employers, women and younger people were slightly overrepresented.

To ensure the representativeness of the sample, we introduced weights. In the experiment with workers, we rebalanced the data so that our sample matched the relevant employment structure concerning the distribution of key variables: gender, age, education, four occupational groups (managers, professionals, service/sales workers, and a combined group consisting of technicians/associate professionals and clerical support workers), occupational tasks groups. In the experiment with employers, we rebalanced the data so that our sample matched the structure of employers and HR managers (according to the ISCO-08 classification) concerning the distribution of gender, age, education, region, and sector. We created the weights using the 2020 Polish Labour Force Survey (LFS) data. Table 3 presents the worker sample structure, and Table 4 presents the employer sample structure.

[8] Mas and Pallais (2017) presented evidence that preferences regarding flexible work arrangements investigated via survey are similar to those expressed in real-life application processes. Drasch (2019) estimated the willingness to pay for various non-monetary job characteristics and found a strong correlation between choices made in a factorial survey and real life.

[9] We allocated 2-digit ISCO occupations to these occupational task groups using the application of Acemoglu and Autor (2011) classification to the European data, developed by Lewandowski et al. (2020). See Table A2 in Appendix A for details.

Table 3. Sample characteristics – experiment with workers

	Sample structure			Population structure (workers)
	N	%	% (weighted)	%
	Gender			
Women	5,861	52.5%	56.2%	56.4%
Men	5,305	47.5%	43.8%	43.6%
	Age group			
20-34	4,535	40.6%	31.7%	32.0%
35-49	4,193	37.6%	45.2%	45.7%
50-64	2,438	21.8%	23.1%	22.3%
	Education			
Secondary or lower	4,901	43.9%	44.0%	43.7%
Tertiary	6,265	56.1%	56.0%	56.3%
	Occupation			
Routine occupation	6,250	56.0%	50.7%	48.0%
Non-routine analytical occupation	3,135	28.1%	30.1%	31.3%
Non-routine personal occupation	1,781	16.0%	19.3%	20.7%

Note: The sample structure is weighted with our survey weights, the population structure is weighted with the LFS survey weights.
Source: Own calculations using data gathered for the experiment and annual data for 2020 from Poland's Labour Force Survey.

Table 4. Sample characteristics – experiment with employers

	Sample structure		Population structure (managers and HR specialists)	
	N	%	% (weighted)	%
	Gender			
Women	913	58.9	43.7	43.7
Men	637	41.1	56.3	56.3
	Age group			
20-34	453	29.2	19.2	19.1
35-49	808	52.1	53.6	53.6
50-64	289	18.6	27.2	27.3
	Education			
Secondary or lower	547	35.3	40.3	40.3
Tertiary	1003	64.7	59.7	59.7
	Sector (based on the NACE codes)			
Agriculture	30	1.9	3.6	3.6
Manufacturing	327	21.1	28.4	28.4
Services	1194	77.0	68.1	68.1
	Occupation of the candidate			
Routine occupation	822	53.1	-	-
Non-routine analytical occupation	427	27.5	-	-
Non-routine personal occupation	301	19.4	-	-

Note: The sample structure is weighted with our survey weights, the population structure is weighted with the LFS survey weights.
Source: Own calculations using data gathered for the experiment and annual data for 2020 from Poland's Labour Force Survey.

2.4. Descriptive results

Table 5 presents the share of workers who chose WFH when both jobs offered equal wages. Most workers (62.9%) indicated that they preferred a WFH job offer, especially if they could combine remote work for 2-3 days a week with working in the office the other days (69.8%), rather than working fully remotely (56.2%). There were differences between socio-demographic groups. Younger people chose WFH more often than older people (68.1% of 20-34-year-olds vs 61.8% of 35-49-year-olds vs 58.3% of 50-64-year-olds). Workers with tertiary education selected it more often (65.4%) than workers with secondary or lower education (59.8%). People who were commuting for a longer time chose WFH more often. Workers in non-routine personal occupations chose WFH less often than workers in non-routine analytical and routine occupations (55.8% vs 69.1% vs 61.9%, respectively).

Table 5. The shares of workers who chose a WFH job over an on-site job with the same wage (%)

	WFH 5 days a week	WFH 2-3 days a week	WFH – total	N
Total	56.2%	69.8%	62.9%	4281
Gender				
Women	54.3%	74.3%	64.1%	2241
Men	58.7%	63.9%	61.3%	2040
Age				
20-34	62.0%	75.1%	68.1%	1724
35-49	52.7%	71.5%	61.8%	1614
50-64	54.5%	61.2%	58.3%	943
Education				
Secondary or lower	59.0%	60.6%	59.8%	1880
Tertiary	54.0%	77.3%	65.4%	2401
Commuting time				
< 30 mins	54.2%	68.0%	61.3%	3092
30 - 60 mins	58.4%	79.5%	68.9%	791
> 60 mins	63.1%	63.9%	63.4%	398
Task groups				
Routine occupation	58.0%	65.8%	61.9%	2410
Non-routine analytical occupation	58.2%	80.0%	69.1%	1187
Non-routine personal occupation	48.3%	64.1%	55.8%	684

Note: Sample size refers to the total number of vignettes with identical wages in WFH and on-site job offers. 50% of such vignettes offered 2-3 days a week of WFH, 50% offered 5 days a week of WFH.
Source: Own calculations using data gathered for the experiment.

Table 6 presents the share of employers who selected a candidate willing to WFH when both candidates had the same wage expectations. The demand for WFH was noticeably lower among employers than among workers. Only 37.0% of employers chose a candidate willing to work remotely (39.3% when a candidate wanted hybrid work, 34.9% when a candidate wanted to work fully remotely). Women selected a WFH candidate more often than men (42.1% vs 32.4%). Managers who perceived WFH as productive chose a WFH candidate more often than managers who perceived WFH as less productive (53.3% vs 31.9%); those who perceived WFH as beneficial for the company selected a WFH candidate more often than managers who did not share this view (45.0% vs 30.8%).[10] High talent

[10] We assessed managerial attitudes with the following questions: 'How do you assess the productivity of employees working from home compared to those who work in the office' (seven-point scale from 'definitely better' to 'definitely worse'); 'Enabling

management quality firms chose a WFH candidate more often than those with low talent management quality (45.8% vs 34.9%).[11] Employers chose a candidate from non-routine personal occupations who wanted to WFH more often than candidates from non-routine analytical and routine occupations (40.1% vs 32.8% vs 37.9%, respectively).

Table 6. The shares of employers who chose a WFH candidate over an on-site candidate with equal wage demand (%)

	WFH 5 days a week	WFH 2-3 days a week	WFH – total	N
Total	34.9%	39.3%	37.0%	591
Gender				
Women	37.4%	46.8%	42.1%	362
Men	33.0%	31.6%	32.4%	229
Age				
20-34	33.7%	48.0%	40.5%	178
35-49	35.8%	37.6%	36.5%	304
50-64	33.8%	36.2%	35.1%	109
Education				
Secondary or lower	42.3%	41.9%	42.2%	209
Higher	29.9%	37.8%	33.6%	382
Perceive WFH workers as productive				
Yes	51.4%	55.4%	53.3%	149
No	30.1%	34.0%	31.9%	442
Perceive WFH as beneficial for the company				
Yes	38.8%	51.5%	45.0%	263
No	32.2%	29.1%	30.8%	328
The quality of talent management				
High	42.7%	49.6%	45.8%	114
Low	33.1%	37.0%	34.9%	477
Occupational task groups				
Routine occupation	33.7%	43.0%	37.9%	311
Non-routine analytical occupation	29.3%	36.8%	32.8%	152
Non-routine personal occupation	45.2%	34.2%	40.1%	128

Note: Sample size refers to the total number of vignettes with identical wage demands of WFH and on-site candidates. 49% of vignettes offered 2-3 days a week of WFH, 51% of vignettes offered 5 days a week of WFH.
Source: Own calculations using data gathered for the experiment.

employees to work from home may involve both benefits (e.g. savings related to office rental, greater employee satisfaction, etc.) and costs (e.g. less control over their work, the need to invest in new technologies, etc.). Please think about all the possible costs and benefits of working from home in your company/institution and share your opinion (five-point scale from 'the benefits far outweigh the costs' to 'the costs far outweigh the benefits').

[11] We measured talent management quality (TMQ) with six questions as in the World Management Survey (Bloom et al., 2012): talent mindset, incentives and appraisals, dealing with poor performers, developing good performers, employee value proposition, and retaining talent. Answers were coded on a Lickert scale from 1 (worst practice) to 5 (best practice). We calculate the TMQ score as the average of the six questions and define high-quality management as above the third quartile score (3.4 in our sample). The distribution of TMQ scores in our sample is similar to the distribution in Poland, the EU countries, and the OECD countries in the main sample of the World Management Survey – see Table A6 in Appendix A.

3. Econometric methodology

3.1. Stated preferences regarding working from home

For workers, we first quantify stated preferences toward working from home. We estimate a logistic regression of the probability that a worker prefers to work from home rather than in the office:

$$\Pr(\text{WFH}_j = 1) = F(\beta_0 + \beta_1 X_i + \beta_2 Q_i + \beta_3 O_j + \Theta_j + \iota_i + \gamma_{ijv} + \varepsilon_{ijv}) \quad (1)$$

where $F(Z) = \frac{e^Z}{1+e^Z}$, i stands for the individual, j for a job offer, and v for the vignette number. X_i is a vector of personal and workplace characteristics (set of indicator variables for gender, age, education, caring for children or older adults, employment status, working part-time, type of contract, commute time, commute means, and perceiving COVID-19 as a serious threat), Q_i is a set of indicator variables for occupational task groups (non-routine cognitive analytical, non-routine cognitive personal, routine occupations)[12]; O_j represents job offer amenities (the option of working from home, the number of WFH days per week), Θ_j is a set of indicator variables that capture wage differences between job offers, ι_i is a continuous variable reflecting the COVID-19 infection rate in an individual's county recorded during the time we conducted the survey, and γ_{ijv} corresponds to the order of offers (WFH on the left or right side) and the vignette number (1 to 5) presented to the participant.

For employers, we quantify stated preferences towards candidates who want WFH. We estimate a logistic regression of the likelihood of choosing a candidate who prefers working from home rather than in the office:

$$\Pr(\text{WFH}_j = 1) = F(\beta_0 + \beta_1 C_v + \beta_2 P_i + \beta_3 Q_i + \Theta_j + \iota_i + \gamma_{ijv} + \varepsilon_{ijv}) \quad (2)$$

The differences in comparison to model (1) are as follows: C_v is a vector of candidate's characteristics (indicator variables for gender, occupational task groups, experience, and commute time), P_i covers manager and firm characteristics (role in a company, size of company, sector, and size of the town), Q_i is a set of indicator variables that characterize managers' attitudes and company practices: perceiving working from home as beneficial to the company, perceiving employees working from home as more productive, having an above-median quality of talent management, perceiving COVID-19 as a serious threat, the self-assessed effect of the COVID-19 pandemic on the company, the degree to which working from home has been possible at the company before-, during, and after COVID-19 restrictions, as well the readiness of the company to have employees working from home.

3.2. Willingness to pay for working from home

Second, we estimate workers' willingness to pay for working from home. For workers, it reflects the valuation of the benefit from the WFH option in monetary terms. We model the participant's utility as:

$$U_{ijv} = \alpha_0 + \alpha_1 X_i + \alpha_2 O_j + \alpha_3 W_j + \alpha_4 Q_i + \iota_i + v_{ji} + \epsilon_{jiv} \quad (3)$$

[12] We calculated the task content of occupations using the methodology of Acemoglu and Autor (2011), based on the Occupational Information Network (O*NET) data, adapted to the European data by Hardy, Keister, and Lewandowski (2018) who present methodological details. Second, we allocated occupations to groups according to the task with the highest value, following Fonseca et al. (2018) and Lewandowski et al. (2020). The allocation is shown in Table A2 in Appendix A.

Notation is the same as in the case of the model (1), except for wages – W_j is the (continuous) relative wage difference offered in job offer j as compared to an office-based job,[13] and v_{ji} represents a set of indicator variables for vignette numbers (1 to 5).

A worker chooses a job offer j if it provides a higher expected utility than the job offer k presented in the same vignette v, $U_{jiv} > U_{kiv}$. The indicator variable Y_{ijv} equals one if participant i selected job j presented in a vignette v. Therefore,

$$Pr\left(Y_{ijv} = 1\right) = \Pr\left(U_{ijv} > U_{ikv}\right) \tag{4}$$

We estimate the parameters using conditional logit models, where $F(U) = \frac{e^U}{1+e^U}$. We estimate the willingness to pay for a job amenity as the ratio of point estimates of parameters:

$$WTP(O_j) = -(\frac{\alpha_2}{\alpha_3}) \tag{5}$$

We compute the confidence intervals using the Stata *wtp* command with the default delta method (Hole, 2007).

To quantify the heterogeneity in WTP between subgroups, we interact both the wage difference variable and the indicator variable for working from home with a given subgroup's fixed effect. We distinguish subgroups defined by the key worker, workplace, and employer characteristics. We apply this approach to the pooled sample. We also re-estimate our models on subpopulations defined according to the number of WFH days offered (2-3 vs five days), as this appears to be a key feature affecting the appeal of working from home (Barrero et al., 2021).

For employers, the willingness to pay estimate reflects the valuation of the benefit from WFH for workers, as well as the net costs associated with hiring WFH workers (e.g., the cost of additional managerial and monitoring effort, less the potential savings on office costs). We model the participant's utility as:

$$U_{ijv} = \alpha_0 + \alpha_1 C_v + \alpha_2 O_j + \alpha_3 W_j + \alpha_4 C_v + \alpha_5 P_i + \alpha_6 Q_i + \iota_i + v_{ji} + \epsilon_{jiv} \tag{6}$$

The notation convention is analogous to models (2) and (3), with O_j representing job offer amenities (the option of working from home, the number of WFH days per week) and W_j being the (continuous) relative wage difference demanded by a candidate compared to a candidate who prefers to work only in the office.

We estimate employers' WTP using equations (4-5). We explore heterogeneity in employer's WTP based on candidate characteristics C_v, and manager characteristics, P_i and Q_i.

In all models, standard errors, ε_{ijv}, are clustered at the participant level.

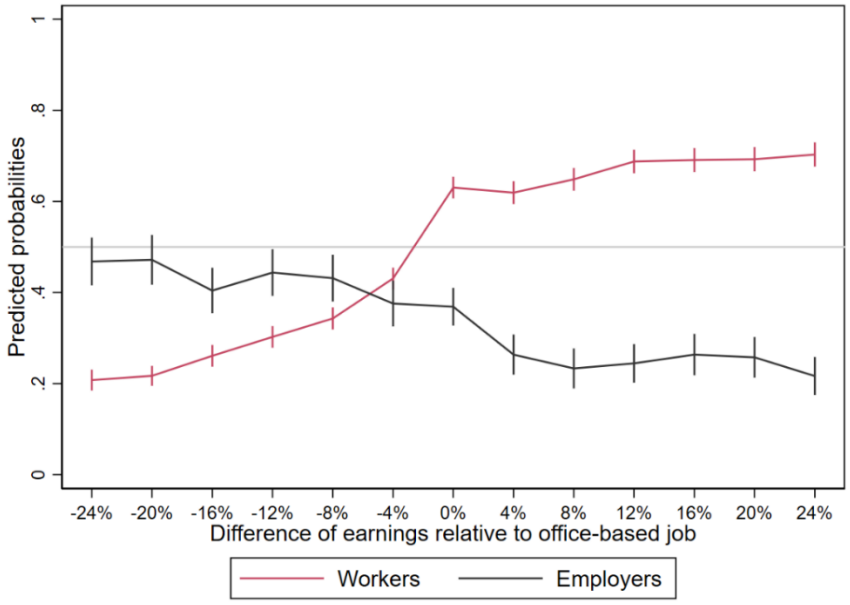
[13] We checked whether treating the differences in earnings between a home-based job and an office-based job as a continuous variable instead of as a set of indicator variables yielded comparable regression results. The results were indeed very similar (Figures B1-B2 in Appendix B). Full estimation results are available upon request.

4. Results

4.1. Stated preferences regarding working from home

Estimating a logit model (1) on the likelihood of selecting a WFH job, we find that the demand for working from home among workers was substantial. When offered the same wage in an office-based job and in a job with the option of WFH, 63% of participants would prefer WFH (Figure 1). Intuitively, the higher the wage offered in a WFH job, the higher the predicted probability that WFH was selected. However, the effect of wage premiums and wage penalties was asymmetrical. For each level of wage difference, a wage penalty reduced the preference for WFH more considerably than an equivalent wage premium increased this preference. The size of this effect was particularly pronounced for minor wage differences: a 4% wage penalty reduced the preference for WFH by 20 pp., but a 4% wage premium did not affect it. Substantial wage penalties (20-24%) decreased the probability of choosing WFH to 21-22%, while equal wage premiums increased it to merely 69-70% (from 63%).[14]

Figure 1. Predicted probabilities of employers choosing a candidate who wants to work from home (grey) compared with predicted probabilities of workers choosing a WFH job offer (red), conditional on the differences in wage expectations between WFH and an office-based job candidate in the case of employers, and an office-based job offer in the case of workers



Note: Marginal effects calculated from a model that includes controls for personal and workplace characteristics, frequency of WFH in the job presented, differences in wage expectations, order of jobs presented on the screen, and vignette number. Standard errors clustered at the participant level.
Source: Own calculations using data gathered for the experiment.

[14] We controlled for a range of personal and workplace characteristics. The marginal effects for all controls are shown in Table B1 in Appendix B. The groups of workers who were significantly more likely to prefer WFH were: women rather than men (by 2.7 pp.); younger workers (aged 20-34) rather than prime-aged workers (aged 35-49, by about 1.3 pp.) and older workers (aged 50 or older, 4.6 pp. less likely to prefer to WFH than prime-aged workers);. Caring for children was associated with a higher probability of choosing to WFH (by 1.6 pp.). By contrast, caring for older adults was associated with a lower probability of choosing WFH (by 3.0 pp.).

The supply of WFH jobs was much lower: 37% of employers would hire a WFH worker when choosing between candidates who share the same characteristics and wage expectations but differ in their demand for WFH (Figure 1). The higher the wage expectation of a WFH candidate, the lower the probability of being hired. Employers were more often discouraged by WFH workers expecting higher earnings than encouraged by WFH workers accepting lower wages. A WFH candidate who wished to earn 4% more than an office-based candidate faced an 11 pp. lower probability of being hired than a candidate who expected to make the same wage as an office-based candidate. WFH candidates willing to earn 4% less did not improve their hiring chances. Almost half of employers preferred to employ office-based workers even if they expect to earn considerably more (20-24%) than WFH workers.

The demand for WFH among workers estimated in our experiment – about 2/3 of workers preferred WFH – lies within the range found in other studies. It is below 80% among middle-skilled workers performing cognitive jobs in the US (Mas and Pallais, 2017) and above 50% among office workers in China (Bloom et al., 2015). Being concerned about feeling isolated or lonely when working from home and placing a high value on social interactions and teamwork may partly explain why some people prefer to work in the office even if there is no wage premium (Bloom et al., 2015). Also, some workers may fear the flexibility stigma – being perceived as less productive, less committed to the workplace, and having fewer career opportunities or reduced wages. Furthermore, Poland's technological constraints and housing deprivations may discourage workers from WFH, while moderate time savings due to WFH may create lower incentives to work remotely than in countries with generally longer commutes.[15]

4.2. Willingness to pay for working from home

Valuations of WFH among workers and employers

The estimated willingness-to-pay values indicate a substantial mismatch between workers' and employers' valuations of WFH. On average, workers would sacrifice 3.2% of their earnings for the option to work from home, while employers expect a wage cut of 21.0% to select a WFH worker over an office-based worker (Table 7).[16] That last value reflects the sum of employers' valuation of (i) their perceptions of the productivity of WFH workers, and (ii) the net costs of managing and monitoring WFH workers. Later, we will decompose the 18 pp. gap in the valuations of workers and managers into these individual factors (Figure 3).

We find noticeable differences in the WTP among workers depending on the number of WFH days offered. People offered to work from home for 2-3 days per week combined with working in the office were willing to sacrifice 5.8% of their earnings. However, workers were not willing to sacrifice any significant share of earnings for the option of

[15] In Poland, the share of households with access to the internet is below the EU average (65.8% vs. 75.8% in 2019, World Development Indicators), the average number of rooms per person lower (1.2 vs. 1.7 in 2020, Eurostat), and the overcrowding rate is higher (36.9% vs. 17.4% in 2020, Eurostat). At the same time, in 2021-2022, the mean daily time savings when WFH amounted to 54 minutes in Poland, below the average of 72 across 27 countries with available data (Aksoy et al., 2023).

[16] Our estimated WTP values are at the lower end of the spectrum of those estimated for the most developed economies (the UK and the US), which have varied from 4% (Maestas et al., 2018), to 8% (Mas and Pallais, 2017), to almost 25% (Datta, 2019). We think it can be attributed to Poland being less technologically advanced, having a lower quality of housing, and lower time savings from WFH than the UK or the US.

WFH five days a week.[17] This confirms that a hybrid work organisation appears more appealing to workers than working only on-site or fully remotely. Participants in descriptive surveys in the US (Barrero et al., 2021) and in 27 middle- or high-income countries (Aksoy et al., 2022) declared similar preferences. Employers were also more willing to accept hybrid rather than fully remote work (expected wage cuts of 16.4% and 25.3%, respectively). While the mismatch in valuations of hybrid work is smaller than the average, it is still high (11 pp., Table 7). The gap in valuations of fully remote work is huge (25 pp., Table 7), suggesting that this option is unlikely to be widely adopted. As the differences between hybrid and fully remote work valuations are crucial, we focus on them throughout the paper. Nevertheless, we also present average effects for the sake of completeness.

Table 7. Estimated workers' and employers' willingness to pay for working from home, overall and by subpopulations (% of wage in an office-only job, with 95% confidence intervals)

Group	Workers	Employers
Average effect	3.17*** (2.54; 3.79)	20.95*** (17.36; 24.54)
WFH 2-3 days/week	5.79*** (5.04; 6.54)	16.44*** (12.82; 20.06)
WFH 5 days/week	0.56 (-0.22; 1.34)	25.25*** (20.80; 29.69)
Non-routine analytical occupation	4.56*** (3.45; 5.67)	15.93*** (11.44; 20.41)
Non-routine interpersonal occupation	0.07 (-1.35; 1.49)	18.80*** (13.52; 24.09)
Routine occupation	3.53*** (2.63; 4.42)	24.43*** (19.86; 29.00)
Men (candidates)	1.61*** (0.68; 2.55)	20.86*** (17.00; 24.72)
Women (candidates)	4.37*** (3.53; 5.22)	21.05*** (17.08; 25.03)
Commute under 30 mins	2.45*** (1.73; 3.17)	22.83*** (18.32; 27.34)
Commute between 30 and 60 mins	5.07*** (3.74; 6.40)	20.73*** (16.42; 25.04)
Commute over 60 mins	4.40*** (1.81; 7.00)	19.13*** (14.97; 23.28)
Children in household	3.81*** (2.98; 4.64)	-
No children in the household	2.63*** (1.71; 3.55)	-

*Note: WTP estimated from a model with controls for personal and workplace characteristics, number of WFH days per week offered, differences in pay, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 111,650 for workers and N = 15,440 for employers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

An essential aspect of mismatch is related to worker heterogeneity. In general, we find that preferences towards working from home differ substantially between subgroups of workers. Still, employers do not differentiate between these subgroups when deciding whether to hire a worker who demands WFH.

The first dimension of worker heterogeneity and preference mismatch relates to gender and family situations. Among workers, women were willing to sacrifice a higher share of earnings for the WFH option (4.4%) than men (1.6%), and people with children in the household had a higher WTP than people with no children in a family (3.8%

[17] Regressions of stated preferences also show that combining WFH with working in the office was seen as more appealing than working only from home. The probability that a worker would select WFH was by approx. 7.5 pp. higher if they were offered 2-3 days a week of WFH than if they were offered an otherwise similar job that required them to WFH for five days a week (Table B1 in Appendix B). The probability that employers would select a candidate who wanted 2-3 days of WFH was by 6 pp. higher than they would select a candidate who wanted five days of WFH (Table B3 in Appendix B).

vs 2.6%). This finding aligns with earlier evidence for middle-skilled workers in the US (Mas and Pallais, 2017). In contrast, workers' gender did not affect employers' valuations of WFH. This result contrasts with the pre-pandemic findings that women working from home faced penalties from employers who perceived them as concentrating on family obligations, in contrast to WFH men who signalled commitment by working remotely (Leslie et al., 2012).

The second dimension of mismatch relates to commuting. Workers with longer commuting time had a higher WTP for working from home (Table 7). People commuting for more than 30 minutes were willing to sacrifice about 5.1% of their earnings for the option to WFH, while people commuting for less than 30 minutes – 2.5%.[18] This pattern aligns with pre-pandemic evidence from Germany that showed that people who combine WFH with working at an employer's premises tend to commute noticeably longer distances than those who do not work from home (Arntz et al., 2022). The resulting value of time saved on hour-long commuting – slightly above 50% of an hourly wage – is in line with past estimates of the value of travel-time savings (Zamparini and Reggiani, 2007). Employers expected slightly higher wage cuts from workers commuting for less than 30 minutes (22.8%) than from workers commuting between 30 and 60 minutes and 60 minutes or more (20.7% and 19.1%, respectively), though these differences were not significant.

The third dimension of heterogeneity concerns occupations. Workers in non-routine analytical occupations were the most interested in remote work: they were willing to sacrifice 4.6% of their earnings for WFH, slightly more than routine workers (3.5%). At the same time, workers in non-routine personal occupations were the least willing to forego earnings for remote work. Workers in non-routine occupations often enjoy higher levels of worker autonomy and pay (Menon et al., 2020). Our results suggest that benefits from WFH may complement worker autonomy in non-routine analytical occupations. But in non-routine interpersonal occupations, workers may perceive the inconvenience of online interactions as paramount to additional autonomy from remote work.[19] At the same time, employers were more willing to hire WFH candidates in non-routine analytical and non-routine personal occupations (expected wage cut of 15.9% and 18.8%, respectively) than in routine occupations (24.4%).[20] Nevertheless, the gap between the WTP of employers and workers was considerable even in non-routine analytical occupations (about 11.4 pp). In routine occupations, it was almost twice as large (20.9 pp.). Routine cognitive occupations are structured and repetitive, which should make them conducive to remote performance tracking.

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[18] Regressions of stated preferences confirm that gender, having children in a household, and commuting patterns were associated with differences in WFH choices. Women were by 2.7 pp. more likely to select WFH jobs than men. People caring for children were by 1.6 pp. more likely to choose WFH than those not caring for children. Workers commuting for less than 30 minutes were by 3.7 pp. less likely to choose WFH than workers who were commuting between 30 and 60 minutes. There was no difference between workers commuting for at least an hour and those commuting between 30 and 60 minutes (Table B1 in Appendix B). Neither gender nor commuting time of a candidate affected employers' choices (Table B3 in Appendix B).

[19] Non-routine interpersonal occupations include managers typical for the private sector (e.g., administrative, commercial, production managers) and high-skilled public sector occupations (e.g. officials, teachers). Both subgroups have similar preferences toward remote work – they are willing to forego a small part of their wages for hybrid work and are averse to fully remote work. The only difference is that public officials have a greater aversion to working fully remotely. Therefore, we analyse them jointly. The full results for each subgroup are available upon request.

[20] Regressions of stated preferences corroborate the findings on occupational differences. Workers in non-routine cognitive analytical occupations were no more likely, and workers in non-routine cognitive personal occupations were by 4.9 pp. less likely to choose WFH jobs than workers in routine occupations (Table B1 in Appendix B). Employers were by 3.7 pp. more likely to choose a WFH worker in non-routine analytical occupations than in a routine occupation, but there was no significant difference between candidates in non-routine personal occupations and routine occupations (Table B3 in Appendix B).

However, there is evidence that WFH hurts productivity in routine occupations (Atkin et al., 2023; Drasch, 2019; Emanuel and Harrington, 2023) and may attract less productive workers (Emanuel and Harrington, 2023). This may explain employers' hesitancy toward WFH, especially in hiring, as the greatest productivity losses have been documented during the initial period, which requires more training, work preparation, and communication between managers and workers (Atkin et al., 2023).

As a robustness check of occupational differences, we distinguished between occupations that are highly teleworkable and those that are not, using a 50% share of teleworkable tasks as a threshold (based on Dingel and Neiman, 2020). Table A2 in Appendix A shows the classification of occupations. The findings are similar. Workers in highly teleworkable occupations had higher WTP than workers in less teleworkable occupations (4.0% vs 1.7%). Managers expected smaller wage cuts from candidates in highly teleworkable occupations than from candidates in less teleworkable jobs (17.3% vs 30.8%, Table B2 in Appendix B). The resulting mismatch amounts to 13.3 pp. in highly teleworkable occupations and as much as 29.1 pp. in less teleworkable occupations.

Next, we explore heterogeneities between groups of workers and employers, conditional on the number of WFH days offered. It allows us to identify groups with contrasting preferences toward WFH.

Comparing the WTP among various worker and employer groups confirms a widespread preference for hybrid over fully remote work. The WTP for 2-3 days of WFH per week combined with working in the office was noticeably higher than the WTP for WFH five days a week (Table 8). In particular, women exhibited a substantially higher WTP for hybrid work than men (7.5% vs 3.3%). However, the willingness to pay for fully remote work was insignificant for both genders. Hence, the higher average WTP among women than among men (4.4% vs 1.6%, Table 7) can be attributed to women's higher WTP for hybrid work.

Moreover, workers commuting for less than 30 minutes a day were willing to sacrifice a significant portion of their earnings (5.3%) for WFH 2-3 days a week, but showed no significant WTP for WFH five days a week. Workers commuting more than half an hour daily had a significant WTP for hybrid and fully remote work. However, their willingness to pay for hybrid work was greater than for fully remote work (7.1% vs 3.0% among those commuting for 30-60 minutes, and 5.3% vs 3.2% among those commuting for 60 minutes or more). Similarly, people with children showed significant WTP for fully remote work (1.7%), while those without children did not. Employers also preferred to hire workers who wanted WFH 2-3 days per week rather than five days a week, but their valuations of WFH generally did not depend on candidates' gender or commuting time (Table 8). The only exception pertains to hybrid work demand by workers with short commutes – employers expected slightly larger wage cuts from them than from workers with commutes longer than 30 minutes.

The wage cuts expected by employers were exceptionally high for candidates in routine occupations who wanted a fully remote job. The WTP in question amounted to 34.9%, the WTP for candidates in non-routine analytical occupations (25.6%) and candidates in non-routine personal occupations (23.7%, Table 8). Such a wage cut would essentially prohibit workers in routine occupations from finding a fully remote job, especially since workers in routine occupations were unwilling to accept almost any wage cuts for fully remote work (Table 8). Workers in non-routine analytical occupations stood out with the strongest preference to work fully remotely, with WTP at 2.0% (Table 8). Contrastingly, workers in non-routine personal occupations would accept fully remote work only after a pay raise of 3.6% (Table 8). At the same time, workers in all occupational groups would accept a reduction in earnings for hybrid work, with non-routine analytical workers having the highest WTP (7.0%), while non-routine personal and routine workers' WTP was slightly lower (3.8% and 5.5%, respectively, Table 8).

Table 8. Estimated workers' and employers' willingness to pay for working from home, depending on the number of WFH days a week, overall and by subpopulations (% of wage in an office-only job, with 95% confidence intervals)

	2-3 days of WFH per week (hybrid)		5 days of WFH per week (fully remote)	
Group	Workers	Employers	Workers	Employers
Average effect	5.62*** (4.91; 6.34)	14.19*** (10.98; 17.41)	0.60 (-0.20; 1.39)	30.19*** (22.90; 37.47)
Non-routine analytical occupations	7.01*** (5.64; 8.38)	8.69*** (3.90; 13.47)	1.96*** (0.67; 3.25)	25.59*** (17.32; 33.87)
Non-routine interpersonal occupations	3.77*** (2.18; 5.36)	15.23*** (9.66; 20.80)	-3.64*** (-5.52; -1.77)	23.73*** (14.46; 33.01)
Routine occupations	5.51*** (4.50; 6.52)	16.87*** (12.65; 21.09)	1.42** (0.28; 2.56)	34.90*** (26.17; 43.62)
Men (candidates)	3.27*** (2.19; 4.36)	14.11*** (10.42; 17.80)	-0.06 (-1.22; 1.09)	30.02*** (22.23; 37.81)
Women (candidates)	7.45*** (6.48; 8.41)	14.31*** (10.51; 18.12)	1.06 (-0.02; 2.14)	30.31*** (22.51; 38.11)
Commute under 30 mins	5.26*** (4.38; 6.13)	17.23*** (12.70; 21.76)	-0.45 (-1.35; 0.44)	30.84*** (22.38; 39.30)
Commute between 30 and 60 mins	7.14*** (5.79; 8.48)	13.03*** (8.93; 17.13)	3.00*** (1.23; 4.76)	30.98*** (22.34; 39.63)
Commute over 60 mins	5.32*** (2.65; 7.98)	12.02*** (7.71; 16.33)	3.23* (-0.15; 6.61)	28.82*** (20.68; 36.96)
Children in household	5.92*** (4.94; 6.91)	-	1.70*** (0.69; 2.7)	-
No children in household	5.38*** (4.34; 6.42)	-	-0.35 (-1.55; 0.85)	-

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. Experiment with workers: N = 55,634 for WFH 2-3 days/week offers; N = 56,016 for WFH 5 days/week offers. Experiment with employers: N = 7,634 for WFH 2-3 days/week offers; N = 7,806 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

The role of managerial attitudes and the quality of talent management in the valuation of remote work

The essential dimension of heterogeneity among employers and mismatch with workers relates to managerial attitudes toward and experiences with remote work, as well as the quality of talent management in a company. Surveying these attitudes allowed us to study heterogeneity not captured by easily observable characteristics of firms, such as sector, firm size, and managers' education.

Among employers, the heterogeneity in willingness to hire WFH workers was strongly related to their perception of the productivity of remote work as compared to on-site work. Employers who perceived WFH workers as at least as productive as on-site were substantially more willing to hire WFH workers. The wage cut they expected amounted to 4.4%, compared with 26.0% among managers who perceived WFH workers as less productive than on-site workers (Table 9).[21] The resulting gap in workers' valuations of WFH was just 1.2 pp. among managers who perceived WFH as productive (Figure 2). Moreover, these managers' valuations of hybrid WFH aligned with workers' willingness to pay for hybrid WFH (Figure 2). Still, the same managers were less willing to hire fully remote workers, expecting a wage cut of 6.6 pp, above 0.6 pp that were willing to sacrifice (Figure 2). Importantly, only 25% of managers expressed favourable views of WFH productivity. We found similar results for employers who perceived WFH as beneficial for the company (Table 9). They constituted a larger (44% of the sample) and partly overlapping group. Such managers expected a wage cut of 11.5% to hire workers who want WFH, much below 27.5% among managers who thought WFH was not beneficial for their company.

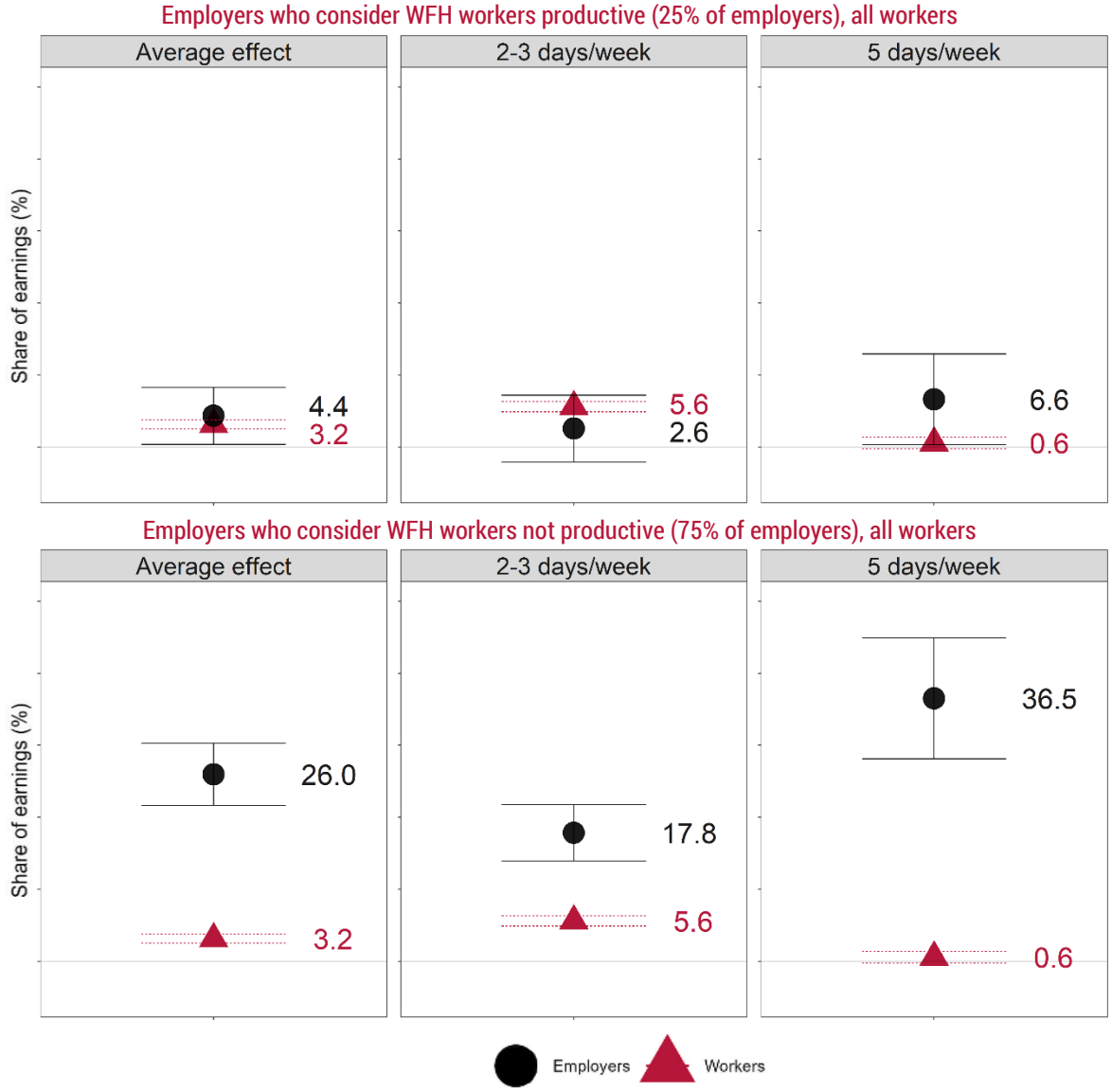
Table 9. Managers' estimated valuations (willingness-to-pay) of working from home, depending on the number of WFH days, by subpopulations (% of wage in an office-only job, with 95% confidence intervals)

Group	Average effect	2-3 days of WFH per week (hybrid)	5 days of WFH per week (fully remote)
WFH workers perceived as equally or more productive	4.36** (0.39; 8.33)	2.59 (-2.04; 7.22)	6.64** (0.34; 12.94)
WFH workers perceived as less productive	25.98*** (21.65; 30.30)	17.84*** (13.94; 21.75)	36.51*** (28.14; 44.88)
WFH perceived as beneficial for the company	11.54*** (7.87; 15.21)	6.21*** (2.36; 10.05)	18.70*** (12.34; 25.05)
WFH perceived as not beneficial for the company	27.54*** (22.92; 32.17)	19.93*** (15.69; 24.17)	38.20*** (28.97; 47.42)
High-quality talent management	17.49*** (12.14; 22.85)	13.63*** (7.70; 19.55)	22.74*** (13.99; 31.49)
Low-quality talent management	21.81*** (17.94; 25.69)	14.32*** (10.85; 17.80)	31.97*** (24.23; 39.71)

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

[21] In stated preferences regressions, we also find large differences between managers with different attitudes to WFH (Table B3 in Appendix B): WFH candidates were more likely to be chosen by managers who considered WFH beneficial for the company (by 5 pp. as compared to those who believed WFH is not beneficial), by managers who thought that WFH is productive (by 6 pp.), by managers in firms which used WFH before the pandemic (by 5 pp.).

Figure 2. Comparison of valuations of WFH in employers and workers, estimated as willingness-to-pay (% of wage of a candidate who wants to work in the office, with 95% confidence intervals)



Source: Own calculations using data gathered for the experiment.

The heterogeneity in willingness to hire WFH workers was also related to the quality of talent management in a company. While we find no differences in the average WTP demand for remote workers between firms with high and low talent management quality (Table 9), managerial practices play a role when the type of occupation and the number of WfH days per week are considered (Table 10). The talent management quality mattered for the willingness to hire fully remote workers, especially those in non-routine analytical occupations. Managers in firms with low talent quality required a wage cut of 22.3% to hire such workers, but those in firms with high talent management quality – only 7.2% (not significantly different from zero, Table 10). They were also slightly more willing to hire fully remote workers in other occupations, but differences were less pronounced. Finally, there were no differences between these two groups of managers in preferences to hire workers for hybrid work (Table 10). High talent management involves quantitative assessment of workers' performance and progress, and non-routine analytical occupations are well suitable for performing such evaluations remotely, hence, workers' and managers' preferences align. In other occupations, or in firms with low talent management quality,

managers may perceive remote workers as less productive (Emanuel and Harrington, 2023) or do not know how to manage them easily. Hence, the gap between workers' and managers' valuations of WFH. In the next section, we will evaluate the contribution of productivity perceptions and management efforts to this gap.

Table 10. Managers' estimated valuations (willingness-to-pay) of working from home, depending on the quality of talent management, by subpopulations defined by the number of WFH days and occupation presented in the job offer (% of wage in an office-only job, with 95% confidence intervals)

Group	Average effect	Non-routine analytical occupation	Non-routine personal occupation	Routine occupation
		WFH 5 days		
High-quality talent management	22.74*** (13.99; 31.49)	7.24 (-2.36; 16.83)	20.18** (1.58; 38.78)	38.76*** (19.55; 57.98)
Low-quality talent management	31.97*** (24.23; 39.71)	22.30*** (14.01; 30.58)	23.49*** (11.67; 35.31)	46.76*** (27.57; 65.96)
N	7,806	2,136	1,508	4,162
		WFH 2-3 days		
High-quality talent management	13.63*** (7.70; 19.55)	7.74* (-0.19; 15.67)	13.75* (-0.69; 28.19)	18.74*** (8.96; 28.51)
Low-quality talent management	14.32*** (10.85; 17.80)	7.37*** (2.31; 12.42)	15.71*** (8.50; 22.92)	18.53*** (12.92; 24.15)
N	7,634	2,116	1,492	4,026

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Next, we verify that the heterogeneity attributed to managers' perceptions of WFH was driven by these perceptions rather than differences in observable characteristics. First, managers' assessments of productivity and benefits from WFH are only weakly related to observable characteristics, such as education, age, gender, firm size, or sector (Table B4 in Appendix B). Less than 1% of the variance of the likelihood of perceiving WFH as productive or beneficial can be attributed to any of these factors. Managers who perceived WFH workers as productive tended to work in firms that used WFH before the COVID-19 pandemic and tended to use WFH themselves – these factors contribute about 10% of 25% of the variance of the likelihood of perceiving WFH as productive that we are able to explain with all observables. Second, we find no differences in valuations of WFH between managers in different sectors nor between small, medium, and large firms (Table 11). This shows that the difference in the willingness to hire WFH workers between managers who perceived WFH as productive results from underlying differences in their experiences with WFH rather than their allocation across sectors or firm types.

Table 11. Managers' estimated valuations (willingness-to-pay) of working from home, depending on the number of WFH days, by subpopulations defined by firm size and economic activity sector (% of wage in an office-only job, with 95% confidence intervals)

Group	Average effect	WFH 2-3 days/week	WFH 5 days/week
		Firm size	
< 10	22.02*** (15.30; 28.74)	13.19*** (6.37; 20.02)	34.15*** (22.02; 46.27)
10-49	18.96*** (14.37; 23.55)	13.75*** (9.10; 18.40)	26.27*** (18.25; 34.30)
50-249	20.28*** (15.14; 25.43)	13.25*** (8.24; 18.27)	29.79*** (20.49; 39.08)
> 250	24.00*** (18.20; 29.80)	16.55*** (10.74; 22.37)	33.63*** (23.20; 44.07)
		Sectors	
Agriculture (A)	19.56** (3.74; 35.38)	13.29 (-3.78; 30.35)	25.09** (2.28; 47.89)
Industry (B-F)	17.60*** (12.42; 22.78)	12.94*** (7.47; 18.40)	23.68*** (14.64; 32.72)
Professional services (G-N)	17.14*** (12.84; 21.43)	10.13*** (5.84; 14.42)	26.88*** (19.07; 34.70)
Other services (O-U)	27.58*** (22.30; 32.87)	19.21*** (14.30; 24.12)	39.42*** (29.13; 49.72)

*Note: Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1. NACE sector A covers Agriculture, Forestry and Fishing; sectors B-F cover: Mining and Quarrying (B), Manufacturing (C), Electricity, Gas, Steam and Air Conditioning Supply (D), Water Supply; Sewerage, Waste Management and Remediation Activities (E), and Construction (F); sectors G-N cover: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G), Transportation and Storage (H), Accommodation and Food Service Activities (I), Information and Communication (J), Financial and Insurance Activities (K), Real Estate Activities (L), Professional, Scientific and Technical Activities (M), and Administrative and Support Service Activities (N); while sectors O-U cover: Public Administration and Defense; Compulsory Social Security (O), Education (P), Human Health and Social Work Activities (Q), Arts, Entertainment and Recreation (R), Other Service Activities (S), Activities of Households as Employers (T), and Activities of Extraterritorial Organizations and Bodies (U).*
Source: Own calculations using data gathered for the experiment.

We prefer to focus on heterogeneities between managers who expressed different perceptions of WFH, in line with our pre-registered analysis plan. However, to verify if managers differ strongly in their willingness to hire workers who demand WFH, we have also performed cluster analysis, concentrating on the distinction between hybrid and fully remote work. Appendix E presents methodological details and auxiliary results.

This data-driven heterogeneity analysis suggests the existence of three manager clusters similar in size (Table 12). Their preferences vary, reflecting different perceptions of WFH productivity and past experiences with it in particular clusters, confirming our previous findings. The first cluster (35.1% of the sample) consists of managers who tended to be prime-aged or older, often worked in firms that introduced WFH only during the COVID-19 pandemic, and had negative attitudes to WFH, perhaps as a result of the pandemic disruption. Table E2 in Appendix E presents descriptive statistics and marginal effects for manager and firm characteristics associated with particular clusters. Managers in this cluster express prohibitively high WTP for remote work. The second cluster (34.7%) involves younger managers who tended to work in large firms, often in a hybrid mode, and had positive views of WFH (Table E2). These managers were willing to hire workers in a hybrid mode without cutting pay. However, they expected a 3.9% wage reduction from fully remote workers (Table 12), while workers were not willing to sacrifice their earnings for fully remote work (Table 7). This cluster is similar to the group that positively perceives WFH productivity but slightly more numerous. The third cluster (30.2%) comprises older managers with positive views of WFH and pre-pandemic experience with remote work. These

managers were more willing to hire workers fully remotely than in a hybrid mode. However, in both options, they expected wage cuts (5.1%, and 11.6%, respectively, Table 12) noticeably above what workers were willing to sacrifice (Table 7). Hence, only in the second cluster do managers' valuations align with workers' valuations, allowing for the widespread adoption of remote work, primarily in a hybrid mode.

Table 12. Managers' valuations of working from home: cluster analysis, valuations by the number of WFH days offered (% of wage in an office-only job, with 95% confidence intervals)

Cluster	Characteristic	% of the sample	Number of weekly WFH days	WTP
1	Prime-aged or older managers in firms that introduced WFH during the COVID-19 pandemic, have negative attitudes to WFH	35.1	2-3 days (hybrid)	44.18*** (29.23; 59.12)
			5 days (fully remote)	59.56*** (41.03; 78.08)
2	Younger managers in large firms who work hybrid and have positive views of WFH	34.7	2-3 days (hybrid)	-0.80 (-2.38; 0.78)
			5 days (fully remote)	3.94*** (2.19; 5.68)
3	Older managers with positive views and WFH experience pre-pandemic	30.2	2-3 days (hybrid)	11.63*** (4.83; 18.44)
			5 days (fully remote)	5.08* (-0.67; 10.83)

*Note: Own calculations using data gathered for the experiment. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own calculations using data gathered for the experiment.

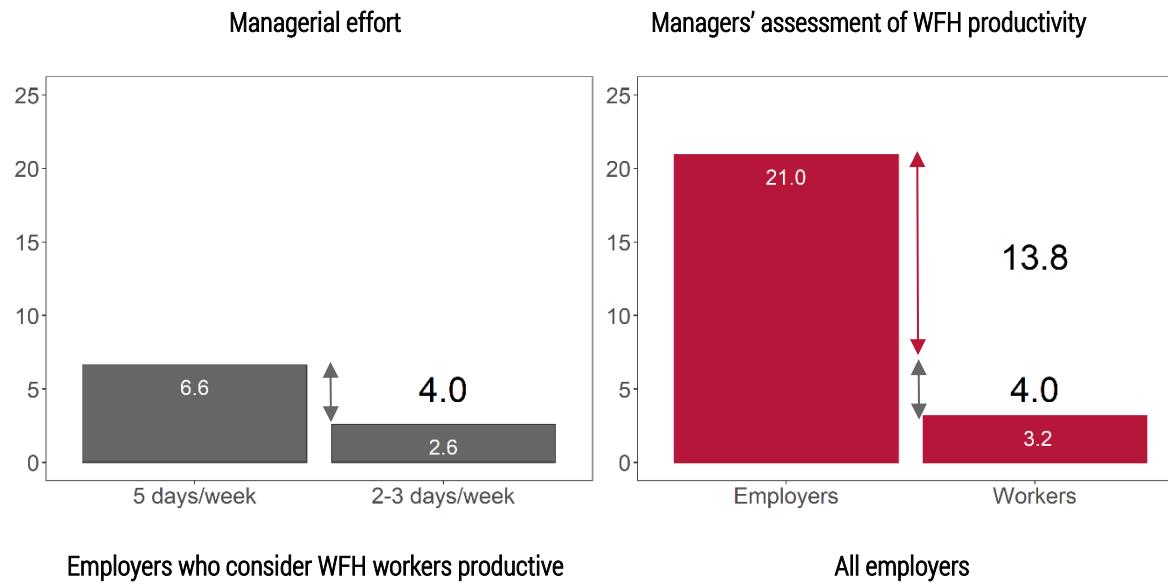
Decomposition of the gap between workers' and employers' valuations of WFH

The previous subsection showed that employers who perceive WFH as productive were the most willing to hire remote workers. However, they also expected a significant wage cut to hire fully remote workers. This may reflect a discrepancy between the benefit from WFH at the firm level and additional managerial effort at an individual level. We explore this result to decompose the overall 17.8 pp. gap in workers' and managers' valuations of WFH into the contributions of (1) the managerial effort required to supervise workers remotely and (2) the average managers' assessment of the productivity difference between WFH and in the office.

The valuations of WFH expressed by employers who perceive remote workers as productive shall not include any pay penalty related to productivity differentials. Thus, we calculate the net cost of extra managerial and monitoring efforts associated with remote work as the difference between managers' WTP for hybrid and fully remote workers.[22] This difference amounts to 4% of earnings (6.6% - 2.6%, Figure 3). Hence, we attribute around 1/5 of the gap between the average valuation of WFH among employers and workers (4 pp. out of 17.8 pp., Figure 3) to managers' assessments of additional managerial and monitoring costs related to WFH. We interpret the remaining 13.8 pp. of the gap as employers' assessments of workers' productivity decline associated with WFH (Figure 3). This value aligns with the 8-19% productivity decline range among remotely working skilled professionals identified by Gibbs et al. (2023), and the 12-18% productivity decline among remote workers in more routine occupations identified by Atkin et al. (2023) and Emanuel and Harrington (2023).

[22] Hybrid work allows managers to set goals and targets, monitor progress, provide coaching and feedback, solve conflicts, etc., on office work days. Fully remote work requires managers to perform all these and other tasks via telecommunication.

Figure 3. Decomposition of the gap in workers' and employers' valuations of working from home



Source: Own calculations using data gathered for the experiment.

The above-discussed net managerial and monitoring cost estimate may be an upper bound. The effort to monitor new WFH hires is probably larger than the effort to monitor incumbent WFH workers, as the former includes onboarding. There is evidence that productivity losses may be particularly strong during this period (Atkin et al., 2023; Emanuel and Harrington, 2023). Our experiment does not allow separating the cost of onboarding from regular supervision and monitoring. Nevertheless, our estimate likely reflects the jobseekers' situation, which is particularly relevant considering the high labour market transitions in the aftermath of the COVID-19 pandemic.

4.3. Robustness checks

We performed several robustness checks for both experiments. In the first two checks, we reduced the sample size by removing observations that may have introduced noise due to the participants' inattention or low confidence in the choices made. In the following check, we estimated our models without weights. Lastly, we used multinomial probit choice modelling. The results of robustness checks for the experiment with workers are summarised in Figure 4 and presented in full in Appendix C. The robustness checks for the experiment with employers are summarised in Figure 5 and presented in full in Appendix D. These checks confirmed our baseline results and findings.

First, we removed participants who chose options on the same screen side on all vignettes they saw, as this may have suggested inattention.[23] 1,008 (9.0%) participants acted this way (Table A1 in Appendix A). The resulting WTP estimates (Tables C1A-B) were slightly larger in absolute terms than the baseline estimates but were not significantly different. The average WTP amounted to 3.4% (with a 95% confidence interval between 2.8% and 4.1%), compared to 3.2% in the pooled sample (2.5% to 3.8%, Table 7). The heterogeneities in WTP were the same as in our baseline results. Next, we removed observations in the first decile of the distribution of

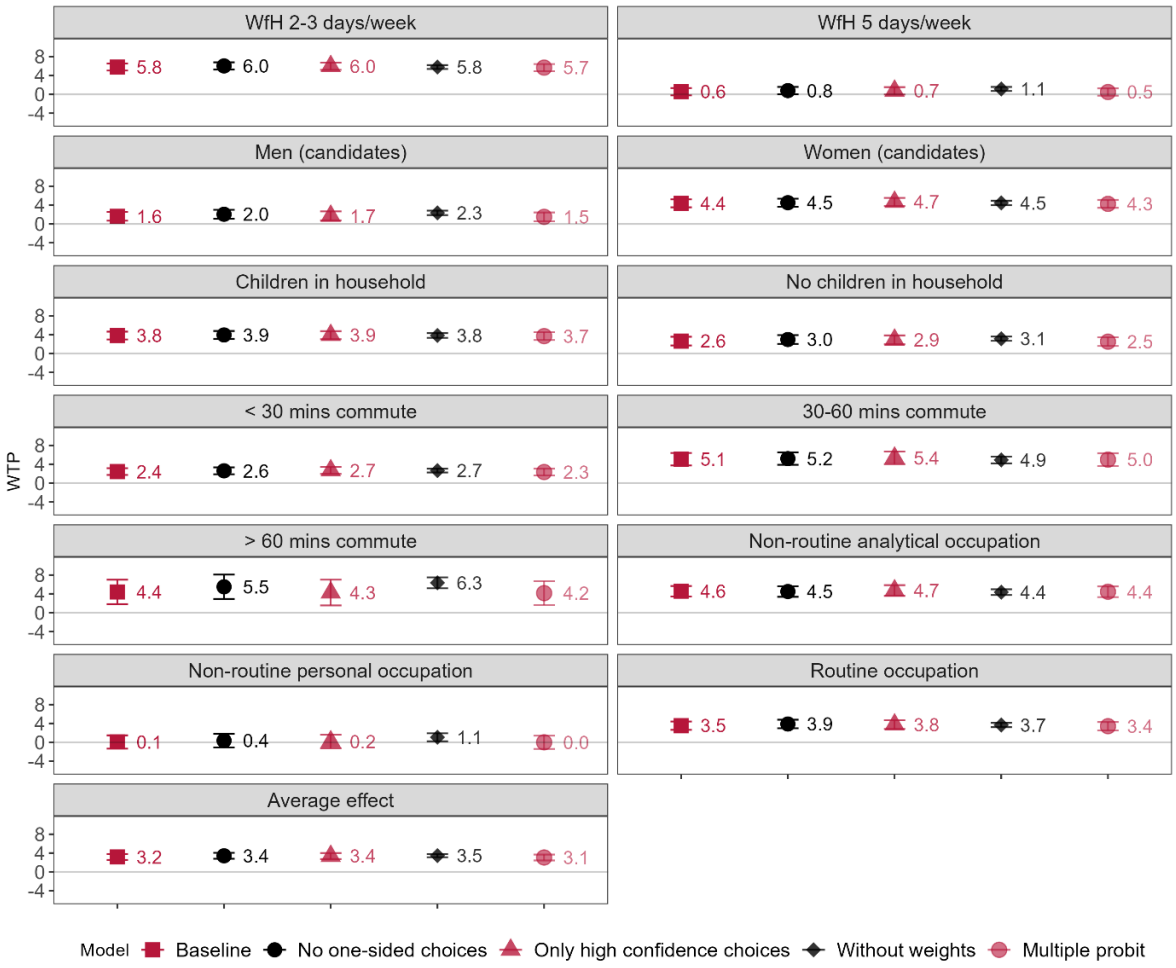
[23] The number of people who failed the inattention checks was very small, at only 65 out of 11,166 participants.

participants' confidence in their choices (10,650 observations, Tables C2A-B). This re-estimation yielded similar results: the average WTP was equal to 3.4% of earnings (with a 95% confidence interval between 2.7% and 4.0%), and the heterogeneities were identical to those in the baseline results. Hence, our baseline findings showed no evidence of inattention or hypothetical bias.

Analogous robustness checks for the experiment with employers also confirm our findings. There were 114 (7.4% observations, Table A1) participants who always chose options on the same side of the screen. Dropping them from the sample resulted in slightly higher WTP estimates in absolute terms. The average WTP was 22.6%, with a 95% confidence interval between 18.7% and 26.5%. The overall heterogeneities in WTP remained the same as in the baseline model (Table D1). Removing 10% of observations, which were the least confident choices, does not affect our conclusions either. The WTP estimates were slightly larger in absolute terms (22.1% on average), and the heterogeneities did not differ from the baseline mode (Table D2). We found evidence that inattention nor hypothetical bias does not affect our baseline results.

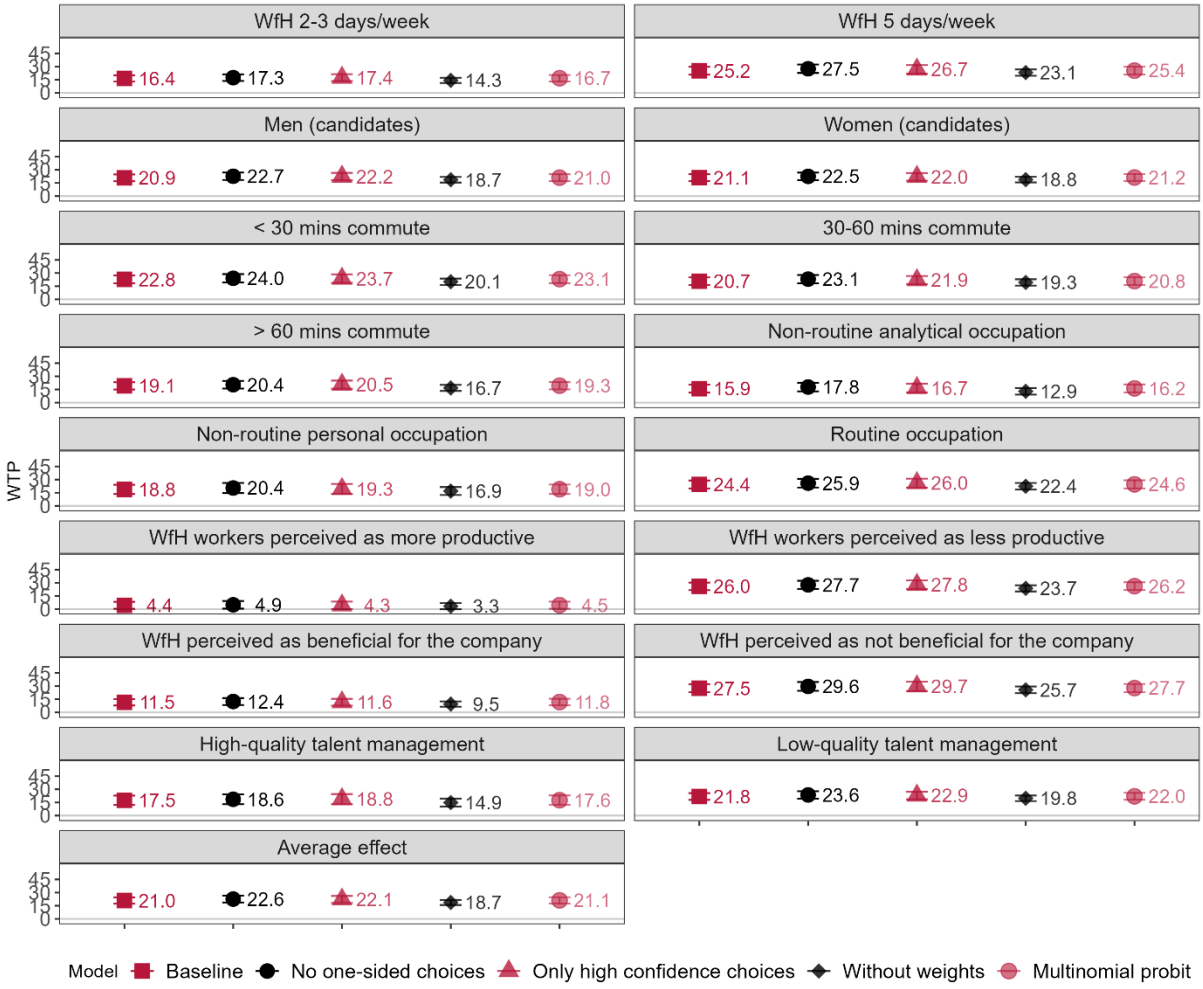
We re-estimated our regressions as logistic models without weights (Tables C3A-B and D3). In the experiment with workers, The WTP estimates in unweighted regressions were slightly larger in absolute terms than in the baseline regressions (Figure 4). Still, the differences were below 0.5 pp. The heterogeneities were the same as in the baseline specification: the WTP was higher for 2-3 days of WFH per week than for five days of WFH per week, and among workers with longer commutes. In the last check, multinomial probit choice modelling (Table C4A-B and D4) also provided results similar to the baseline model, both for workers and employers (Figure 4).

Figure 4. Robustness check for experiment with workers: different models yield similar willingness to pay estimates (% of wage in an office-only job, with 95% confidence intervals)



Note: We present WTP estimates for all job offers. Point estimates with 95% confidence intervals. Results of estimations of separate models by the number of WFH days offered are shown in Appendix C in Figure C1 and Figure C2.
Source: Own estimations using data gathered for the experiment.

Figure 5. Robustness check for experiment with employers: different models yield similar willingness to pay estimates (% of wage in an office-only job, with 95% confidence intervals)



Note: We present WTP estimates for all job offers. Point estimates with 95% confidence intervals. Results of estimations of separate models by the number of WFH days offered are shown in Appendix D in Figure D1 and Figure D2.
Source: Own estimations using data gathered for the experiment.

5. Summary and conclusions

In this paper, we have studied workers' and employers' preferences for working from home using the willingness-to-pay estimates. To this end, we conducted two discrete choice experiments in Poland. Working from home was rare in Poland before the COVID-19 pandemic but has become more prevalent in line with developed country patterns. In our experiments, we included more than 10,000 workers in professional, clerical, and service occupations for whom working from home was a realistic option, and more than 1,500 managers in companies that employ workers in these occupations.

We found a substantial mismatch between workers' and employers' preferences for WFH. On average, workers' demand for remote work was considerably higher than employers' demand for workers who want to work from home. Combining WFH 2-3 days per week with working on-site – hybrid work – was more appealing for both workers and managers than WFH five days a week. Workers' willingness to pay for WFH estimated in our experiment is comparable to the valuations of WFH declared in descriptive surveys worldwide (Aksoy et al.,

2022). Women, people who cared for children, workers in non-routine analytical occupations, and workers with long commutes exhibited the strongest preferences to work from home. At the same time, most employers in our experiment preferred to hire office-based workers. On average, they would have selected a candidate who wanted WFH under a condition of a wage cut about 18 pp larger than the value of earnings an average worker was willing to forego for such an option. We attribute this gap primarily to managers' assessments of productivity loss associated with WFH, followed by managerial and monitoring efforts related to WFH.

Importantly, we found notable heterogeneity between managers that largely depended on their perceptions of WFH productivity, experiences with remote work, and talent management quality. About 25-35% of managers showed valuations of WTP that aligned with those of workers, especially for hybrid work. These managers believed WFH is productive, often worked remotely, and were employed with firms that more often used WFH before the COVID-19 pandemic. Moreover, employers were more willing to hire WFH candidates in non-routine analytical occupations than in routine occupations. However, other aspects that we found relevant for workers' preferences toward WFH – gender and commuting time – did not matter for firms' willingness to hire a WFH candidate. We acknowledge that employers may be more willing to allow WFH among workers integrated with a firm than to employ WFH candidates. Also, we recognise that workers' strong preferences for remote work may induce adjustments in firms' practices that will increase firms' acceptance of remote work. However, even managers who think highly of remote work, and managers in firms with high talent management quality are reluctant to hire fully remote workers, and averse to hiring remote workers in routine occupations. Hence, our results suggest that WFH may remain a domain of the more elite firms and workers, adopted in about 1/4-1/3 of positions in which remote work is possible.

Our findings point to challenges related to the widespread adoption of WFH in the post-COVID era. Hybrid work is likely to be the dominant option. Still, the mismatch between workers' and employers' preferences for WFH may hamper adopting remote work. First, it's due to the negative assessment of WFH productivity by most managers, which is to some extent consistent with studies showing the decline of cognitive workers' productivity after the mass shift to remote work during the pandemic (Gibbs et al., 2023; Künn et al., 2022). Second, it's due to the discrepancy between the additional effort required from managers and the advantages of WFH that benefit workers (e.g. shorter commuting, better work-life balance) or firms (e.g. lower office costs). Further studies may investigate more specific factors behind employers' assessments of workers' benefits from WFH and the costs of managing the WFH workforce, such as personality traits or trust. They may also study interventions or best practices that improve WFH productivity or reduce the potential bias in managers' assessment of WFH productivity.

Finally, the shift toward WFH may widen the gender pay gap as women are willing to sacrifice a larger share of earnings for WFH. However, it may also expand the set of job offer options for women as women are less inclined to commute than men (Le Barbanchon et al., 2021). Moreover, employers expect similar wage cuts from men and women who wish to work from home. This contrasts with pre-pandemic findings that managers perceived WFH women as prioritising family life, in contrast with WFH men signalling more effort by staying at home (Leslie et al., 2012) and a larger WFH wage premium for men (Arntz et al., 2022). Hence, the overall effect of widespread working from home on gender gaps in labour market outcomes appears ambiguous and may be a subject of future research. Further research may also investigate how housing conditions and energy costs shape the demand for working from home.

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Appendix A. Methodological details

Table A1. Indicators of inattention and hypothetical bias – experiment with workers

a) Confidence among study participants regarding their choices		
	Confidence level (points on the 0-100 scale)	
	Experiment with workers	Experiment with employers
Mean	85.0	80.6
Standard deviation	17.0	17.1
Minimal value	0.0	0
Maximal value	100	100
Percentiles		
1st	33	29
5th	52	50
10th	60	58
25th	75	70
50th	90	83
75th	100	96
90th	100	100
95th	100	100
99th	100	100
N (number of choices)	55,830	7,750
b) Individuals who chose job offers/candidates displayed only on one side of the screen		
Left side only	538 (4.8%)	66 (4.3%)
Right side only	470 (4.2%)	48 (3.1%)
N (number of participants)	11,166 (100%)	1,550 (100%)
c) Individuals who provided the wrong answer to the trap questions		
What is 2+2	32 (0.3%)	-
What is 20-7	33 (0.3%)	-
N (number of participants)	11,166 (100%)	1,550 (100%)

Source: Own calculations using data gathered for the experiment.

Table A2. Occupations (two-digit ISCO-08) included in the study, with allocation to occupational task groups, share of teleworkable tasks, and the teleworkability level

Occupation group	Occupational task group	Teleworkability (% of jobs that can be done from home)	Teleworkability
Managers			
Chief executives, senior officials, and legislators	NRCP	89%	High
Administrative and commercial managers	NRCP	94%	High
Production and specialised services managers	NRCP	72%	High
Hospitality, retail, and other services managers	NRCP	50%	Low
Professionals			
Science and engineering professionals	NRCA	68%	High
Teaching professionals	NRCA	97%	High
Business and administration professionals	NRCP	96%	High
Information and communications technology professionals	NRCA	100%	High
Legal, social, and cultural professionals	NRCA	69%	High
Technicians and Associate Professionals			
Science and engineering associate professionals	NRCA	22%	Low
Business and administration associate professionals	NRCP	74%	High
Legal, social, cultural, and related associate professionals	R	60%	High
Information and communications technicians	NRCA	82%	High
Clerical Support Workers			
General and keyboard clerks	R	100%	High
Customer services clerks	R	30%	Low
Numerical and material recording clerks	R	54%	High
Other clerical support workers	R	67%	High
Services and Sales Workers			
Personal service workers	R	31%	Low
Sales workers	R	21%	Low
Personal care workers	R	31%	Low
Protective services workers	R	12%	Low

Note: NRCA – non-routine cognitive analytical, NRCP – non-routine cognitive personal, R – routine.
*Source: Own elaboration based on O*NET occupational task categories adapted for European data by Lewandowski et al. (2020) and the classification of teleworkability developed by Dingel and Neiman (2020).*

Table A3. Definition of the term 'work from home' displayed to the study participants

Please see the table below. It shows how we understand the term 'work from home'. In the next part of the survey, we will ask about your opinion on this type of work.

Work from home	
No	**Yes**
The employee works in the office and cannot work from home.	The employee can do all or part of the work from home. He/she can work from home all days of the week or several days a week. For example, he/she can work in the office on Mondays and Tuesdays and work from home on Wednesdays, Thursdays, and Fridays. He/she can also work in the office for a few hours each day and work from home for the remaining few hours. For example, he/she can work in the office every morning between 9:00 a.m. and 1:00 p.m., and can then work from home between 3:00 p.m. and 7:00 p.m.

Source: Own elaboration.

Table A4. Examples displayed to the study participants

Work in the office
Anna works in the city hall from Monday to Friday between 7:30 a.m. and 3:30 p.m. Her duties include mainly office work – she draws up letters and prepares documents for the public procurement procedure. She works in the office every day between 7.30 a.m. to 3.30 p.m. and does not work from home.
Work from home
Anna works in the city hall from Monday to Friday between 7:30 a.m. and 3:30 p.m. Her duties include mainly office work – she draws up letters and prepares documents for the public procurement procedure. She agreed with her employer that she would work in the office from Monday to Wednesday and would work from home from Thursday to Friday. The employer gave her a computer that provides her with access to the office mailbox and other programs that enable her to work from home.

Source: Own elaboration.

Table A5. Examples of vignettes with job offers displayed to the study participants

	Job offer A	Job offer B
Occupation	Application developer	Application developer
Work hours	This is a full-time position. You will work from Monday to Friday from 9 a.m. to 5 p.m.	This is a full-time position. You will work from Monday to Friday from 9 a.m. to 5 p.m.
Work from home	You will be doing the job in the office. You will not have an option to work from home.	You will have an option to work from home 2 or 3 days per week.
Wage	You will be earning a monthly wage of 4,900 PLN net.	You will be earning a monthly wage of 5,684 PLN net.

Source: Own elaboration.

Table A6. The average talent management scores

	Average talent management scores (by percentiles)		
	25%	50%	75%
Poland - Discrete choice experiment	2.33	3.00	3.33
Poland - WMS	2.42	2.83	3.17
EU countries - WMS	2.33	2.71	3.17
OECD countries - WMS	2.33	2.83	3.17

Note: table presents the average talent management scores (six questions related to incentives and personnel management)
Source: own calculations using data gathered for the experiment and the main sample of the World Management Survey (2004 – 2014).

Appendix B. Additional results

Table B1. Marginal effects from baseline logistic regressions in Experiment to elicit workers' preferences – full set of results

Effect	Marginal effects
Working from home 2-3 days a week	0.075*** (0.006)
Non-routine analytical	0.012 (0.011)
Non-routine personal	-0.049*** (0.012)
Women	0.027*** (0.010)
Primary education or lower	-0.006 (0.034)
Tertiary education	0.012 (0.008)
Vocational education	-0.024* (0.014)
20-34 years of age	0.013* (0.008)
50-64 years of age	-0.046*** (0.016)
Commute time < 30 minutes	-0.037* (0.019)
Commute time < 60 minutes	0.009 (0.020)
Used public transport to get to work before COVID-19	-0.010 (0.011)
Walked or biked to work before COVID-19	0.014 (0.013)
Did not commute to work before COVID-19	0.280*** (0.034)
Caring for children	0.016* (0.009)
Caring for older adults	-0.030*** (0.011)
Jobseeker	0.028** (0.011)
Working full-time	-0.038*** (0.014)
Civil contract	0.016 (0.017)
Self-employed	0.045** (0.018)

Other contract	0.016
	(0.017)
Covid-19 infection rate per capita (county)	-14.505
	(27.790)
Perceiving COVID-19 as highly threatening	0.061***
	(0.009)
WfH job renumeration lowered by 24%	-0.371***
	(0.012)
WfH job renumeration lowered by 20%	-0.361***
	(0.012)
WfH job renumeration lowered by 16%	-0.313***
	(0.012)
WfH job renumeration lowered by 12%	-0.267***
	(0.012)
WfH job renumeration lowered by 8%	-0.223***
	(0.013)
WfH job renumeration lowered by 4%	-0.126***
	(0.012)
WfH job renumeration increased by 4%	0.082***
	(0.013)
WfH job renumeration increased by 8%	0.114***
	(0.013)
WfH job renumeration increased by 12%	0.156***
	(0.013)
WfH job renumeration increased by 16%	0.159***
	(0.014)
WfH job renumeration increased by 20%	0.161***
	(0.014)
WfH job renumeration increased by 24%	0.172***
	(0.014)
WFH job presented on the left	0.029***
	(0.007)
Vignette no. = 1	0.002
	(0.008)
Vignette no. = 2	-0.001
	(0.008)
Vignette no. = 4	-0.011
	(0.008)
Vignette no. = 5	-0.001
	(0.008)
Observations	55,825

*Note: Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1. Reference groups: working from home 5 days a week, routine occupations, perceiving COVID-19 as not threatening, men, secondary education, 35-49 years of age, commute time >60 min., used car to get to work before COVID-19, no caring obligations, worker, working part-time, permanent contract, WFH job presented on the right, vignette no. 3.*
Source: Own calculations using data gathered for the experiment.

Table B2. Estimated willingness to pay for working from home, by the number of WFH days offered, overall and by teleworkability of the occupation (% of wage in an office-only job, with 95% confidence intervals)

Group	Average effect	WFH 2-3 days/week	WFH 5 days/week
Experiment with workers			
High teleworkable occupation	4.04*** (3.30; 4.78)	6.96*** (6.10; 7.81)	0.97** (0.02; 1.92)
Low teleworkable occupation	1.72*** (0.60; 2.84)	3.40*** (2.08; 4.72)	-0.02 (-1.42; 1.38)
Sample size	111,655	55,634	56,016
Experiment with employers			
High teleworkable occupation of the candidate	17.35*** (13.84; 20.87)	10.84*** (7.58; 14.09)	26.18*** (19.28; 33.08)
Low teleworkable occupation of the candidate	30.82*** (24.82; 36.83)	23.55*** (17.63; 29.47)	40.95*** (29.65; 52.26)
Sample size	15,440	7,634	7,806

Note: We used the classification of teleworkability developed by Dingel and Neiman (2020).
Source: Own estimations using data gathered for the experiment.

Table B3. Marginal effects from baseline logistic regressions in the experiment to elicit employers' preferences – full set of results

	Candidate & vignette characteristics	(1) + Socio-demographic controls for the employer	(2) + Company controls
	(1)	(2)	(3)
Candidates' characteristics			
Working from home 2-3 days a week	0.060***	0.061***	0.058***
	(0.013)	(0.013)	(0.012)
Non-routine analytical	0.059***	0.062***	0.037**
	(0.017)	(0.017)	(0.016)
Non-routine personal	0.039**	0.041**	0.026
	(0.020)	(0.020)	(0.019)
Women	-0.016	-0.018	-0.025
	(0.026)	(0.026)	(0.025)
Commute time < 30 minutes	-0.026*	-0.026*	-0.021
	(0.014)	(0.014)	(0.013)
Commute time < 60 minutes	-0.015	-0.016	-0.014
	(0.014)	(0.014)	(0.013)
Up to 3 yrs of experience	-0.026	-0.027*	-0.024
	(0.016)	(0.016)	(0.016)
Up to 10 yrs of experience	-0.035**	-0.035**	-0.037**
	(0.016)	(0.016)	(0.015)
Over 10 yrs of experience	-0.004	-0.005	-0.003
	(0.016)	(0.016)	(0.015)
Employers' characteristics			
Women		0.008	0.013
		(0.015)	(0.014)
Tertiary education		-0.016	-0.020
		(0.018)	(0.017)
Vocational education		-0.017	-0.021
		(0.030)	(0.028)
Age 20-34		0.041**	0.024
		(0.016)	(0.016)
Age 50-64		-0.035*	0.006
		(0.021)	(0.020)
WFH beneficial			0.049***
			(0.016)
WFH productive			0.059***
			(0.019)
High-quality talent management			0.013
			(0.017)
All workers ready to WFH within a week			-0.017
			(0.032)
Some workers ready to WFH within a week			-0.007
			(0.027)
WFH in the last month part-time			0.093***
			(0.020)
WFH in the last month full time			0.110***
			(0.026)
All workers able to WFH before COVID-19			0.037

	Candidate & vignette characteristics	(1) + Socio-demographic controls for the employer	(2) + Company controls
	(1)	(2)	(3)
			(0.028)
Some workers able to WFH before COVID-19			0.045**
			(0.019)
All workers able to WFH during COVID-19			-0.037
			(0.031)
Some workers able to WFH during COVID-19			-0.009
			(0.026)
All workers able to WFH after COVID-19			0.117***
			(0.036)
Some workers able to WFH after COVID-19			0.058**
			(0.023)
COVID-19 effect on business: Definitely negative			-0.010
			(0.022)
COVID-19 effect on business: Rather negative			-0.035**
			(0.017)
COVID-19 effect on business: Rather positive			0.011
			(0.026)
COVID-19 effect on business: Definitely positive			-0.003
			(0.048)
Village			0.021
			(0.025)
Small town <= 20,000			0.042
			(0.026)
Town 20,000-99,999			0.022
			(0.021)
City >500,000			0.053**
			(0.022)
Public company			-0.013
			(0.017)
NGO			0.016
			(0.035)
Company size <9			-0.021
			(0.023)
Company size 50 - 249			-0.001
			(0.019)
Company size >249			-0.019
			(0.021)
Covid infection rate per capita			-0.096
			(0.437)
Perceiving COVID-19 as highly threatening			-0.028*
			(0.016)
WfH job renumeration lowered by 24%	0.124***	0.120***	0.124***
	(0.028)	(0.029)	(0.028)
WfH job renumeration lowered by 20%	0.127***	0.119***	0.127***
	(0.029)	(0.029)	(0.029)

	Candidate & vignette characteristics	(1) + Socio-demographic controls for the employer	(2) + Company controls
	(1)	(2)	(3)
WfH job renumeration lowered by 16%	0.055**	0.052*	0.055**
	(0.027)	(0.027)	(0.027)
WfH job renumeration lowered by 12%	0.098***	0.105***	0.098***
	(0.028)	(0.028)	(0.028)
WfH job renumeration lowered by 8%	0.084***	0.085***	0.084***
	(0.027)	(0.028)	(0.027)
WfH job renumeration lowered by 4%	0.024	0.022	0.024
	(0.027)	(0.028)	(0.027)
WfH job renumeration increased by 4%	-0.098***	-0.102***	-0.098***
	(0.023)	(0.024)	(0.023)
WfH job renumeration increased by 8%	-0.131***	-0.136***	-0.131***
	(0.024)	(0.024)	(0.024)
WfH job renumeration increased by 12%	-0.120***	-0.114***	-0.120***
	(0.023)	(0.024)	(0.023)
WfH job renumeration increased by 16%	-0.098***	-0.099***	-0.098***
	(0.025)	(0.025)	(0.025)
WfH job renumeration increased by 20%	-0.105***	-0.112***	-0.105***
	(0.024)	(0.024)	(0.024)
WfH job renumeration increased by 24%	-0.150***	-0.156***	-0.150***
	(0.023)	(0.022)	(0.023)
WFH job presented on the left	0.029	0.032	0.029
	(0.025)	(0.025)	(0.025)
Vignette no. = 1	-0.027	-0.019	-0.027
	(0.030)	(0.030)	(0.030)
Vignette no. = 2	-0.015	-0.010	-0.015
	(0.038)	(0.039)	(0.038)
Vignette no. = 4	0.013	0.013	0.013
	(0.029)	(0.029)	(0.029)
Vignette no. = 5	-0.018	-0.015	-0.018
	(0.025)	(0.025)	(0.025)
Observations	7,750	7,750	7,720

*Note: Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1. Reference groups: working from home 5 days a week, routine occupation, men (candidate), commute time >60 (candidate), less than 3 years of experience (candidate), men (employer), secondary education (employer), 35-49 years old (employer), WFH not beneficial, WFH not productive, low-quality talent management, perceiving COVID-19 as not threatening, workers not ready to WFH within a week, no WFH in the last month, workers not able to WFH before COVID-19, workers not able to WFH during COVID-19, workers not able to WFH after COVID-19, COVID-19 effect on business: neither positive nor negative, large town, private company, company size 10-49.*
Source: Own calculations using data gathered for the experiment.

Table B4. Correlates of manager's perceptions of working from home – marginal effects from logistic regressions. Column names show dependent variables

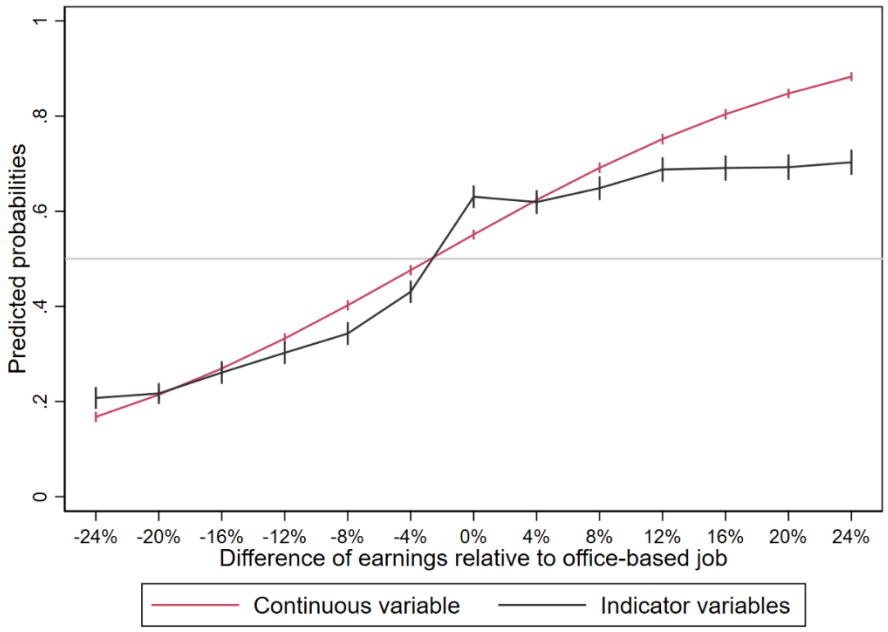
	WFH workers perceived as productive (1)	Contribution to variance (%) (2)	WFH perceived as beneficial (3)	Contribution to variance (%) (4)
WFH productive			0.330***	10.57
			(0.032)	
WFH beneficial	0.223***	9.98		
	(0.023)			
High-quality talent management	0.027	0.08	-0.032	0.05
	(0.026)		(0.030)	
Agriculture (NACE sector A)	-0.002		0.014	
	(0.066)		(0.070)	
Business services (NACE sectors G-N)	-0.022	0.20	0.099***	0.72
	(0.027)		(0.033)	
Other services (NACE sectors O-U)	-0.037		0.080**	
	(0.028)		(0.034)	
Women	0.020	0.07	0.009	0.01
	(0.020)		(0.024)	
Tertiary education	-0.034		-0.057**	
	(0.025)	-0.01	(0.029)	0.15
Vocational education	-0.007		0.044	
	(0.043)		(0.053)	
Age 20-34	0.029		0.005	
	(0.024)	0.50	(0.029)	0.21
Age 50-64	-0.024		0.012	
	(0.027)		(0.031)	
All workers ready to WFH within a week	0.110*		-0.103**	
	(0.056)	2.39	(0.050)	-1.56
Some workers ready to WFH within a week	0.029		-0.041	
	(0.040)		(0.047)	
WFH in the last month part-time	0.078***		0.048	
	(0.026)	6.04	(0.032)	1.41
WFH in the last month full time	0.202***		0.085*	
	(0.044)		(0.045)	
All workers able to WFH before COVID-19	0.103**		0.001	
	(0.049)		(0.057)	
Some workers able to WFH before COVID-19	0.044*		-0.053*	
	(0.026)		(0.030)	
All workers able to WFH during COVID-19	0.001		0.110*	
	(0.047)	5.47	(0.060)	7.63
Some workers able to WFH during COVID-19	-0.056		0.115***	
	(0.039)		(0.042)	
All workers able to WFH after COVID-19	0.030		0.287***	
	(0.051)		(0.059)	
Some workers able to WFH after COVID-19	0.059*		0.112***	
	(0.031)		(0.035)	

	WFH workers perceived as productive (1)	Contribution to variance (%) (2)	WFH perceived as beneficial (3)	Contribution to variance (%) (4)
COVID-19 effect on business: Definitely negative	0.086***		0.024	
	(0.031)		(0.037)	
COVID-19 effect on business: Rather negative	0.036		-0.009	
	(0.025)	-0.06	(0.029)	0.10
COVID-19 effect on business: Rather positive	0.082**		0.041	
	(0.037)		(0.046)	
COVID-19 effect on business: Definitely positive	0.104		0.217***	
	(0.071)		(0.075)	
Perceiving COVID-19 as highly threatening	-0.007	0.08	0.097***	1.53
	(0.022)		(0.026)	
Covid infection rate per capita	-0.080	-0.02	0.321	0.03
	(0.619)		(0.833)	
Company size < 9	-0.062**		-0.006	
	(0.031)		(0.038)	
Company size 50 - 249	0.035	0.45	0.045	0.72
	(0.027)		(0.031)	
Company size > 249	0.009		0.116***	
	(0.028)		(0.034)	
Public company	0.047**		-0.052*	
	(0.024)	0.24	(0.028)	0.14
NGO	-0.023		-0.061	
	(0.045)		(0.057)	
Village	-0.018		0.006	
	(0.032)		(0.040)	
Small town <= 20,000	0.001		-0.037	
	(0.039)	0.06	(0.046)	0.16
Town 20,000-99,999	0.010		-0.049	
	(0.029)		(0.036)	
City >500,000	-0.001		-0.067*	
	(0.030)		(0.035)	
Observations	15,440		15,440	

*Note: Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1.Reference groups: WFH not beneficial, WFH not productive, low-quality talent management, perceiving COVID-19 as not threatening, workers not ready to WFH within a week, no WFH in the last month, workers not able to WFH before COVID-19, workers not able to WFH during COVID-19, workers not able to WFH after COVID-19, Covid-19 effect on business: neither positive nor negative, company size 10 - 49,* a *private company, Industry economic activity (NACE sectors B-F), large town, men (employers), secondary education (employers), age 35-49 (employers). NACE sector A covers Agriculture, Forestry and Fishing; sectors B-F cover: Mining and Quarrying (B), Manufacturing (C), Electricity, Gas, Steam and Air Conditioning Supply (D), Water Supply; Sewerage, Waste Management and Remediation Activities (E), and Construction (F); sectors G-N cover: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G), Transportation and Storage (H), Accommodation and Food Service Activities (I), Information and Communication (J), Financial and Insurance Activities (K), Real Estate Activities (L), Professional, Scientific and Technical Activities (M), and Administrative and Support Service Activities (N); while sectors O-U cover: Public Administration and Defence; Compulsory Social Security (O), Education (P), Human Health and Social Work Activities (Q), Arts, Entertainment and Recreation (R), Other Service Activities (S), Activities of Households as Employers (T), and Activities of Extraterritorial Organisations and Bodies (U).*

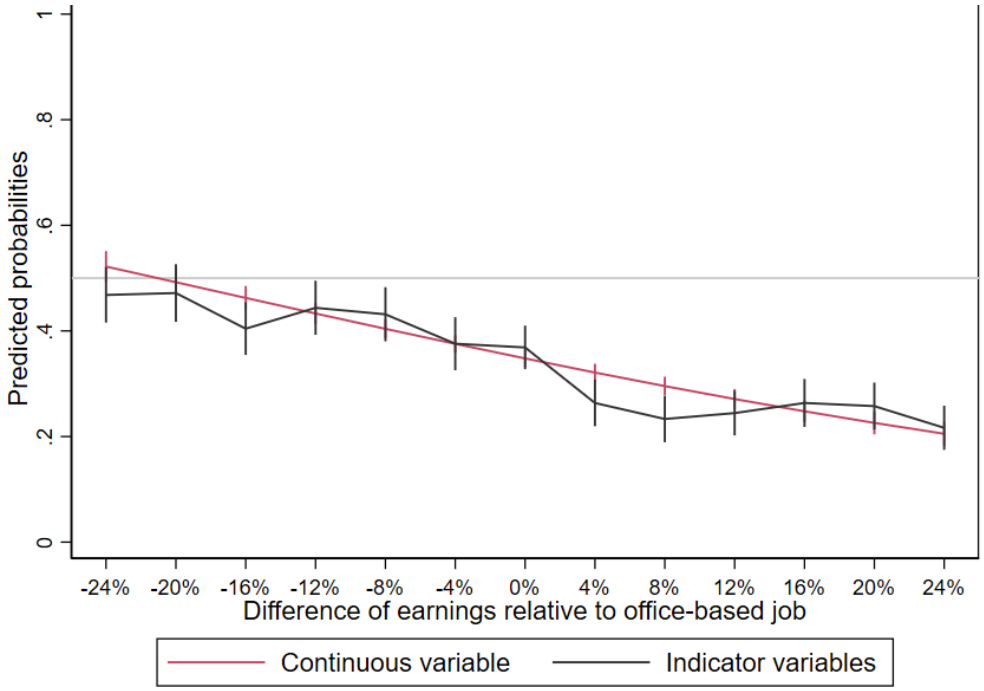
Source: Own calculations using data gathered for the experiment.

Figure B1. Predicted probabilities of choosing a WFH job offer conditional on the differences in earnings between the WFH job and an office-based job, depending on the specification of the earning differences as a set of indicator variables or as a continuous variable



Note: Other controls as in column 3 of Table B1. Standard errors clustered at the participant level. Full estimation results are available upon request.
Source: Own calculations using data gathered for the experiment.

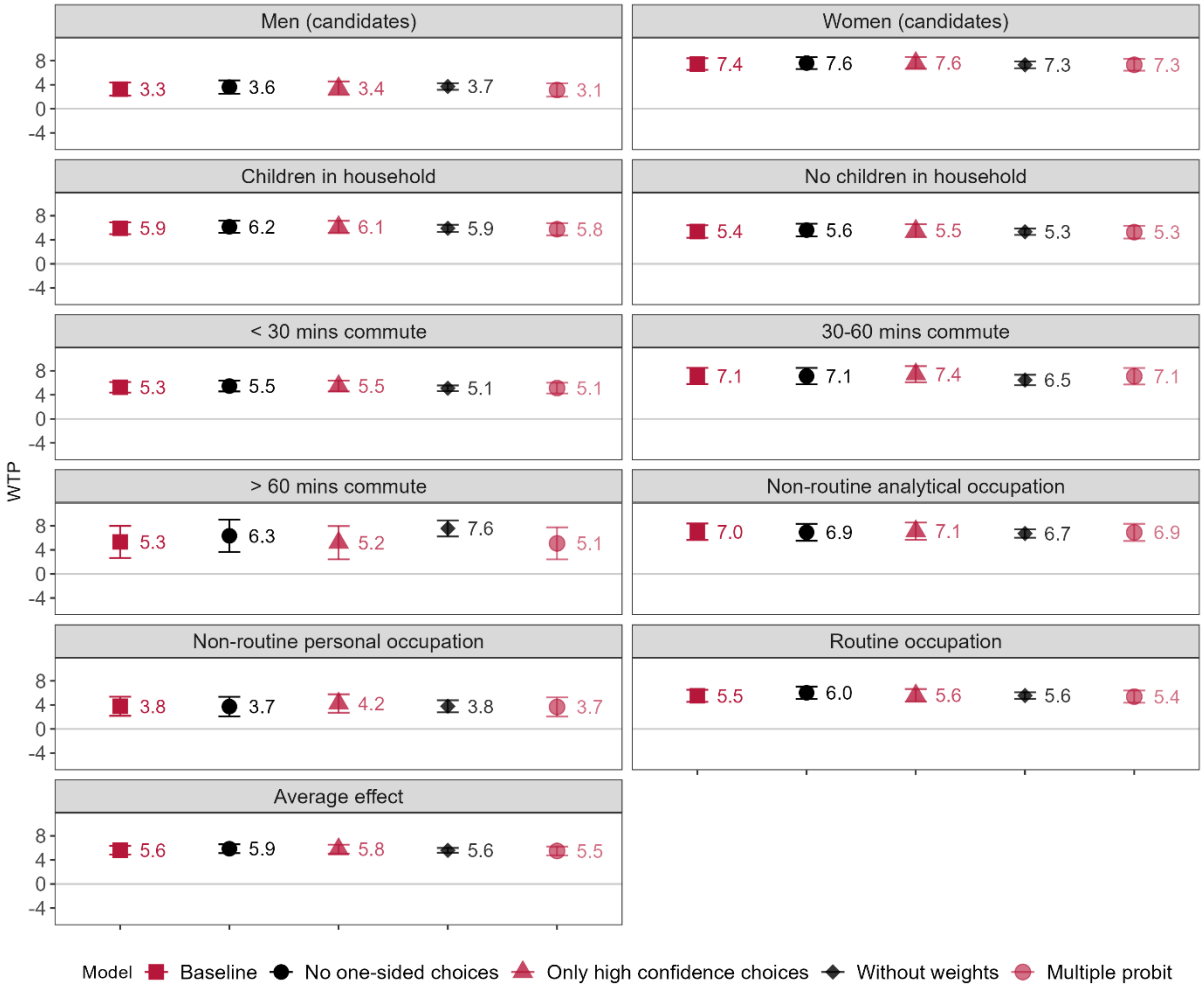
Figure B2. Predicted probabilities of choosing a candidate willing to WFH conditional on the differences in earnings between the WFH job and an office-based job, depending on the specification of the earning differences as a set of indicator variables or as a continuous variable



Note: Other controls as in column 3 of Table B3. Standard errors clustered at the participant level. Full estimation results are available upon request.
Source: Own calculations using data gathered for the experiment.

Appendix C. Robustness checks (experiment with workers)

Figure C1. Robustness check for experiment with workers: Different models yield similar willingness to pay estimates - WFH 2-3 days/week offered (% of wage in an office-only job, with 95%



Note: Point estimates with 95% confidence intervals.
Source: Own estimations using data gathered for the experiment.

Figure C2. Robustness check for experiment with workers: Different models yield similar willingness to pay estimates – WFH 5 days/week offered (% of wage in an office-only job, with 95% confidence intervals)

Note: Point estimates with 95% confidence intervals.
Source: Own estimations using data gathered for the experiment.

Table C1A. Workers' willingness to pay for working from home –without study participants who selected job offers only displayed on one side (left or right) of the screen, all job offers (% of wage in an office job, 95% confidence intervals)

Group	WTP (% of wage in an office-only job, with 95% confidence intervals)		
Average effect	3.42*** (2.79; 4.05)	Men	2.05*** (1.10; 3.00)
Non-routine analytical occupation	4.49*** (3.37; 5.62)	Women	4.50*** (3.65; 5.36)
Non-routine personal occupation	0.36 (-1.09; 1.81)	Children in household	3.94*** (3.10; 4.79)
Routine occupation	3.89*** (2.98; 4.79)	No children in household	2.97*** (2.04; 3.90)
Commute under 30 mins	2.61*** (1.88; 3.35)	WFH 2-3 days/week	6.03*** (5.27; 6.80)
Commute between 30 and 60 mins	5.21*** (3.88; 6.53)	WFH 5 days/week	0.79** (0.01; 1.57)
Commute over 60 mins	5.50*** (2.91; 8.09)		

*Note: WTP estimated from a model with controls for personal and workplace characteristics, number of WFH days per week offered, differences in pay, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. Total N = 101,572. *** p<0.01. ** p<0.05. * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C1B. Workers' willingness to pay for working from home – without study participants who selected job offers only displayed on one side (left or right) of the screen, by the number of WFH days offered (% of wage in an office job, 95% confidence intervals)

Group	WFH 2-3 days/week	WFH 5 days/week
Average effect	5.86*** (5.13; 6.60)	0.85** (0.06; 1.63)
Non-routine analytical occupations	6.92*** (5.51; 8.33)	1.91*** (0.62; 3.2)
Non-routine personal occupations	3.72*** (2.09; 5.34)	-3.05*** (-4.94; -1.17)
Routine occupations	6.02*** (4.99; 7.04)	1.64*** (0.5; 2.78)
Men	3.62*** (2.52; 4.73)	0.43 (-0.72; 1.58)
Women	7.61*** (6.62; 8.59)	1.16** (0.08; 2.24)
Children in household	6.16*** (5.15; 7.17)	1.70*** (0.70; 2.70)
No children in household	5.62*** (4.56; 6.68)	0.11 (-1.08; 1.30)
Commute under 30 mins	5.46*** (4.56; 6.35)	-0.33 (-1.23; 0.58)
Commute between 30 and 60 mins	7.11*** (5.74; 8.47)	3.28*** (1.65; 4.92)
Commute over 60 mins	6.34*** (3.65; 9.03)	4.37*** (1.05; 7.69)

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 50,692 for WFH 2-3 days/week offers; N = 50,880 for WFH 5 days/week offers. *** p<0.01. ** p<0.05. * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C2A. Workers' willingness to pay for working from home – 90% of choices with the highest number of points at the confidence level scale (0-100 scale), all job offers (% of wage in an office job, 95% confidence intervals)

Group	WTP (% of wage in an office-only job, 95% confidence intervals)		
Average effect	3.36*** (2.72; 4.01)	Men	1.70*** (0.74; 2.66)
Non-routine analytical occupation	4.71*** (3.56; 5.86)	Women	4.66*** (3.80; 5.53)
Non-routine personal occupation	0.17 (-1.27; 1.61)	Children in household	3.90*** (3.04; 4.76)
Routine occupation	3.75*** (2.83; 4.67)	No children in household	2.91*** (1.96; 3.85)
Commute under 30 mins	2.69*** (1.95; 3.43)	WFH 2-3 days/week	5.96*** (5.19; 6.73)
Commute between 30 and 60 mins	5.37*** (4.03; 6.72)	WFH 5 days/week	0.74* (-0.05; 1.54)
Commute over 60 mins	4.27*** (1.54; 7.01)		

*Note: WTP estimated from a model with controls for personal and workplace characteristics, number of WFH days per week offered, differences in pay, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. Total N = 101,000. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C2B. Workers' willingness to pay for working from home – 90% of choices with the highest points at the confidence level scale (0-100 scale). by the number of WFH days offered (% of wage in an office job, 95% confidence intervals)

Group	WFH 2-3 days/week	WFH 5 days/week
Average effect	5.80*** (5.06; 6.54)	0.80* (-0.00; 1.61)
Non-routine analytical occupations	7.10*** (5.67; 8.54)	2.12*** (0.82; 3.43)
Non-routine personal occupations	4.23*** (2.69; 5.77)	-3.98*** (-5.92; -2.04)
Routine occupations	5.59*** (4.54; 6.65)	1.80*** (0.65; 2.95)
Men	3.44*** (2.33; 4.56)	-0.07 (-1.24; 1.11)
Women	7.64*** (6.64; 8.63)	1.43** (0.33; 2.52)
Children in household	6.13*** (5.11; 7.15)	1.64*** (0.61; 2.68)
No children in household	5.51*** (4.45; 6.59)	0.06 (-1.15; 1.28)
Commute under 30 mins	5.46*** (4.56; 6.36)	-0.23 (-1.13; 0.67)
Commute between 30 and 60 mins	7.43*** (6.09; 8.78)	3.40*** (1.66; 5.13)
Commute over 60 mins	5.19*** (2.42; 7.96)	3.10* (-0.48; 6.67)

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 50,836 for WFH 2-3 days/week offers; N = 50,164 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C3A. Workers' willingness to pay for working from home – unweighted estimations. all job offers (% of wage in an office job, 95% confidence intervals)

Group	WTP (% of wage in an office-only job. 95% confidence intervals)		
Average effect	3.45*** (3.12; 3.79)	Men	2.35*** (1.87; 2.82)
Non-routine analytical occupation	4.36*** (3.75; 4.97)	Women	4.46*** (3.98; 4.94)
Non-routine personal occupation	1.07** (0.22; 1.91)	Children in household	3.83*** (3.33; 4.33)
Routine occupation	3.67*** (3.22; 4.13)	No children in household	3.14*** (2.68; 3.59)
Commute under 30 mins	2.66*** (2.26; 3.06)	WFH 2-3 days/week	5.79*** (5.38; 6.20)
Commute between 30 and 60 mins	4.92*** (4.19; 5.64)	WFH 5 days/week	1.14*** (0.71; 1.57)
Commute over 60 mins	6.35*** (5.19; 7.50)		

*Note: WTP estimated from a model with controls for personal and workplace characteristics, number of WFH days per week offered. differences in pay, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. Total N = 111,650. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C3B. Workers' willingness to pay for working from home – unweighted estimations. by the number of WFH days offered (% of wage in an office job, 95% confidence intervals)

Group	WFH 2-3 days/week	WFH 5 days/week
Average effect	5.59*** (5.20; 5.99)	1.17*** (0.73; 1.61)
Non-routine analytical occupations	6.72*** (6.02; 7.43)	1.87*** (1.04; 2.69)
Non-routine personal occupations	3.77*** (2.77; 4.77)	-1.76*** (-2.87; -0.64)
Routine occupations	5.55*** (5.01; 6.09)	1.66*** (1.06; 2.25)
Men	3.72*** (3.16; 4.27)	0.82*** (0.20; 1.44)
Women	7.32*** (6.76; 7.88)	1.47*** (0.84; 2.11)
Children in household	5.91*** (5.32; 6.51)	1.67*** (1.01; 2.32)
No children in household	5.34*** (4.81; 5.86)	0.75** (0.15; 1.36)
Commute under 30 mins	5.09*** (4.62; 5.56)	0.11 (-0.41; 0.64)
Commute between 30 and 60 mins	6.46*** (5.59; 7.32)	3.21*** (2.25; 4.17)
Commute over 60 mins	7.56*** (6.23; 8.90)	5.00*** (3.49; 6.51)

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 55,634 for WFH 2-3 days/week offers; N = 56,016 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*
Source: Own estimations using data gathered for the experiment.

Table C4A. Workers' willingness to pay for working from home – multinomial probit choice model, all job offers (% of wage in an office job, with 95% confidence intervals)

Group	WTP (% of wage in an office-only job, 95% confidence intervals)		
Average effect	3.06*** (2.43; 3.68)	Men	1.50*** (0.56; 2.44)
Non-routine analytical occupation	4.45*** (3.32; 5.58)	Women	4.25*** (3.41; 5.10)
Non-routine personal occupation	-0.01 (-1.41; 1.40)	Children in household	3.69*** (2.86; 4.53)
Routine occupation	3.42*** (2.53; 4.31)	No children in household	2.51*** (1.59; 3.44)
Commute under 30 mins	2.35*** (1.63; 3.07)	WFH 2-3 days/week	5.67*** (4.91; 6.43)
Commute between 30 and 60 mins	4.98*** (3.64; 6.33)	WFH 5 days/week	0.49 (-0.29; 1.26)
Commute over 60 mins	4.16*** (1.62; 6.69)		

*Note: WTP estimated from a model with controls for personal and workplace characteristics, number of WFH days per week offered, differences in pay, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. Total N = 111,650. n.a. – convergence not achieved for the model, *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

Table C4B. Workers' willingness to pay for working from home – multinomial probit choice model, by the number of WFH days offered (% of wage in an office job, with 95% confidence intervals)

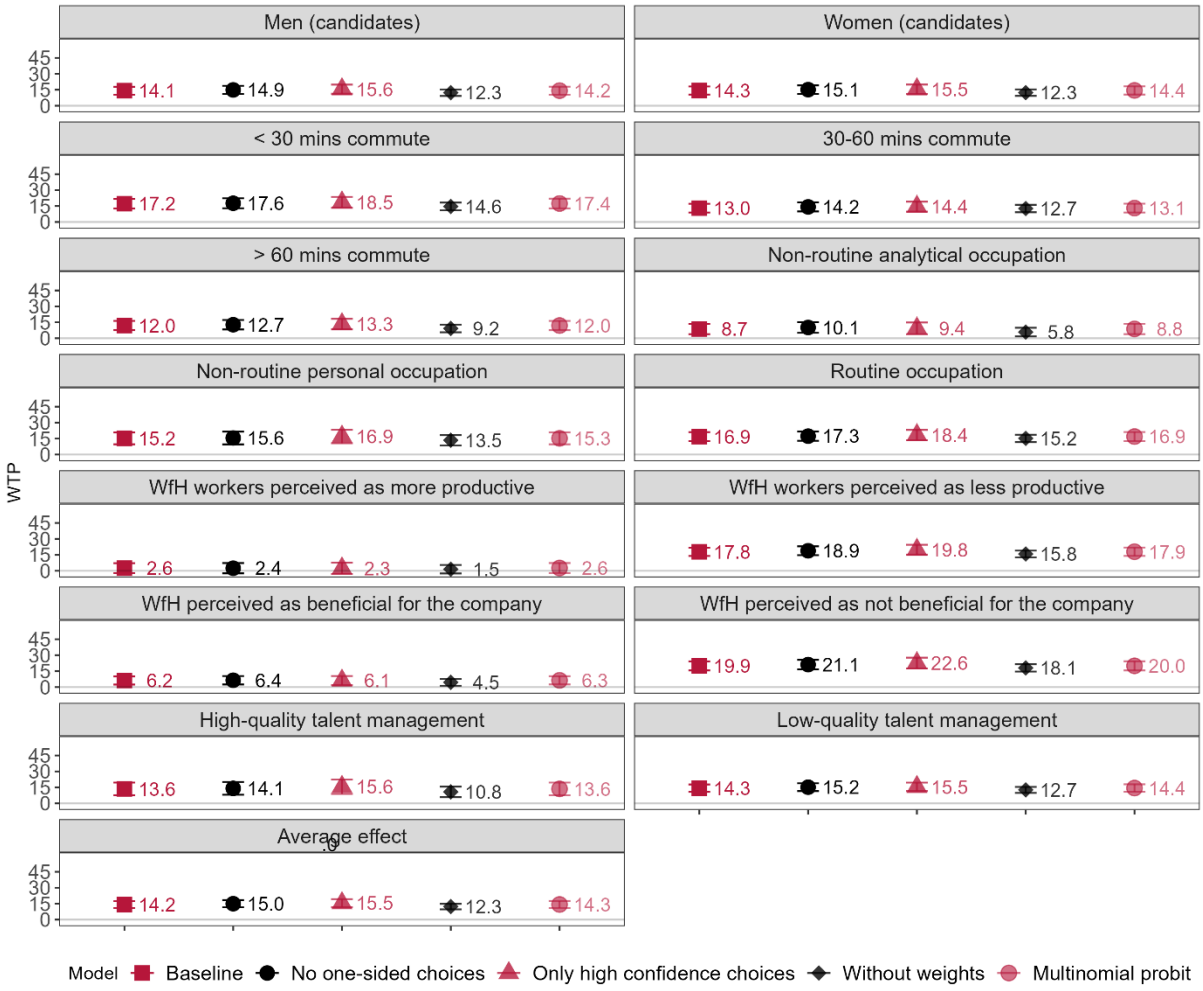
Group	WFH 2-3 days/week	WFH 5 days/week
Average effect	5.49*** (4.76; 6.23)	0.53 (-0.26; 1.31)
Non-routine analytical occupations	6.91*** (5.48; 8.34)	1.88*** (0.58; 3.17)
Non-routine personal occupations	3.65*** (2.06; 5.25)	-3.65*** (-5.49; -1.81)
Routine occupations	5.37*** (4.35; 6.39)	1.35** (0.23; 2.48)
Men	3.13*** (2.02; 4.24)	-0.14 (-1.29; 1.00)
Women	7.32*** (6.34; 8.30)	1.00 (-0.07; 2.08)
Children in household	5.76*** (4.76; 6.76)	1.63*** (0.63; 2.63)
No childen in household	5.27*** (4.21; 6.33)	-0.42 (-1.61; 0.76)
Commute under 30 mins	5.12*** (4.23; 6.02)	-0.51 (-1.40; 0.38)
Commute between 30 and 60 mins	7.09*** (5.72; 8.46)	2.90*** (1.14; 4.67)
Commute over 60 mins	5.08*** (2.42; 7.75)	3.04* (-0.02; 6.28)

*Note: WTP estimated from models with controls for personal and workplace characteristics, earnings differences, order of jobs presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 55,634 for WFH 2-3 days/week offers; N = 56,016 for WFH 5 days/week offers. n.a. – convergence not achieved for the model, *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

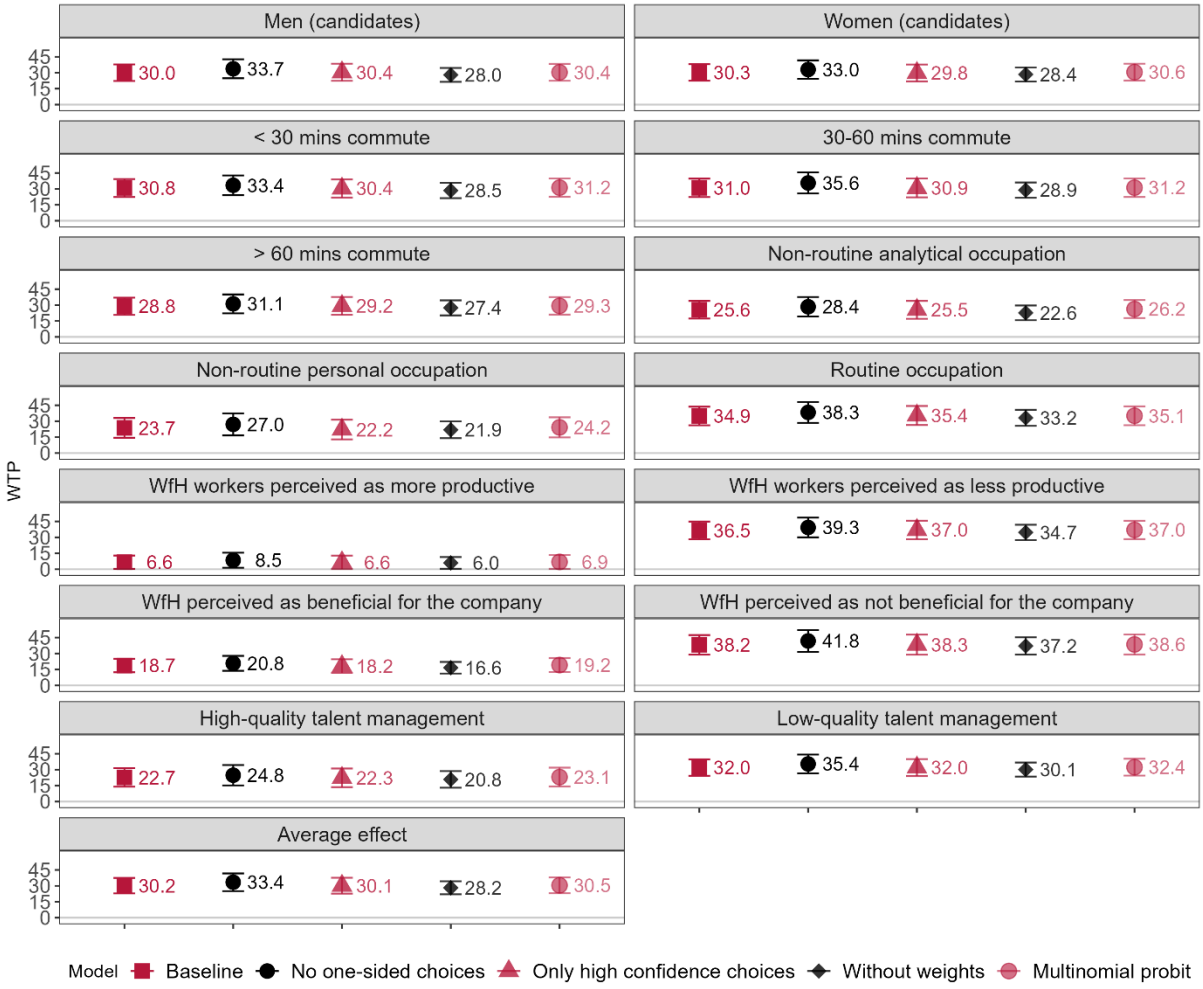
Appendix D. Robustness checks (experiment with employers)

Figure D1. Robustness check for experiment with employers: Different models yield similar willingness to pay estimates – WFH 2-3 days/week offered (% of wage in an office job, with 95% confidence intervals)



Note: Point estimates with 95% confidence intervals.
Source: Own estimations using data gathered for the experiment.

Figure D2. Robustness check for experiment with employers: Different models yield similar willingness to pay estimates – WFH 5 days/week offered (% of wage in an office job, 95% confidence intervals)



Note: Point estimates with 95% confidence intervals.
Source: Own estimations using data gathered for the experiment.

Table D1. Employers' willingness to pay for working from home – without study participants who selected job offers only displayed on one side (left or right) of the screen (% of wage in an office job, 95% confidence intervals)

Group	All job offers	WFH 2-3 days/week	WFH 5 days/week
All employers – average effect	22.59*** (18.68; 26.49)	14.97*** (11.58; 18.36)	33.40*** (25.10; 41.70)
WFH 2-3 days/week offered	17.34*** (13.54; 21.15)	-	-
WFH 5 days/week offered	27.51*** (22.66; 32.37)	-	-
Employer and workplace characteristics			
WFH workers perceived as more productive	4.90** (0.53; 9.28)	2.44 (-2.42; 7.31)	8.50** (1.44; 15.56)
WFH workers perceived as less productive	27.68*** (23.02; 32.34)	18.85*** (14.7; 23.00)	39.31*** (30.06; 48.55)
WFH perceived as beneficial for the company	12.40*** (8.46; 16.34)	6.41*** (2.42; 10.4)	20.77*** (13.75; 27.79)
WFH perceived as not beneficial for the company	29.61*** (24.61; 34.62)	21.15*** (16.64; 25.66)	41.85*** (31.55; 52.15)
High-quality talent management	18.65*** (13.01; 24.29)	14.11*** (8.09; 20.13)	24.81*** (15.24; 34.38)
Low-quality talent management	23.60*** (19.36; 27.83)	15.19*** (11.5; 18.88)	35.42*** (26.61; 44.23)
Candidate characteristics			
Non-routine analytical occupation	17.76*** (12.88; 22.64)	10.15*** (5.09; 15.21)	28.40*** (19.21; 37.59)
Non-routine personal occupation	20.40*** (14.63; 26.16)	15.58*** (9.62; 21.55)	27.04*** (16.66; 37.42)
Routine occupation	25.90*** (21.00; 30.8)	17.31*** (12.96; 21.65)	38.30*** (28.46; 48.14)
Men (candidates)	22.66*** (18.44; 26.87)	14.87*** (11.01; 18.73)	33.73*** (24.79; 42.67)
Women (candidates)	22.51*** (18.22; 26.79)	15.11*** (11.09; 19.12)	33.01*** (24.30; 41.71)
Commute under 30 mins	24.05*** (19.27; 28.82)	17.62*** (12.94; 22.31)	33.38*** (24.10; 42.66)
Commute between 30 and 60 mins	23.09*** (18.37; 27.81)	14.20*** (9.91; 18.48)	35.60*** (25.66; 45.54)
Commute over 60 mins	20.43*** (16.03; 24.83)	12.74*** (8.29; 17.19)	31.13*** (22.22; 40.05)

*Note: WTP estimated from models with controls for personal and workplace characteristics, differences in wage expectations, order of candidates presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 14,300 for all job offers; N = 7,090 for WFH 2-3 days/week offers; N = 7,210 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

Table D2. Employers' willingness to pay for working from home among 90% of choices with the highest number of points at the confidence level scale. 0-100 scale (% of wage in an office job, 95% confidence intervals)

Group	All job offers	WFH 2-3 days/week	WFH 5 days/week
All employers – average effect	22.12*** (18.12; 26.12)	15.54*** (11.79; 19.29)	30.14*** (22.69; 37.6)
WFH 2-3 days/week offered	17.37*** (13.41; 21.34)	-	-
WFH 5 days/week offered	26.72*** (21.74; 31.69)	-	-
Employer and workplace characteristics			
WFH workers perceived as more productive	4.29** (0.02; 8.55)	2.34 (-2.92; 7.60)	6.56** (0.23; 12.89)
WFH workers perceived as less productive	27.77*** (22.87; 32.68)	19.83*** (15.19; 24.48)	36.99*** (28.30; 45.67)
WFH perceived as beneficial for the company	11.58*** (7.66; 15.51)	6.14*** (1.87; 10.42)	18.19*** (11.78; 24.60)
WFH perceived as not beneficial for the company	29.66*** (24.41; 34.91)	22.60*** (17.5; 27.7)	38.33*** (28.90; 47.75)
High-quality talent management	18.81*** (12.99; 24.64)	15.62*** (8.89; 22.35)	22.34*** (13.58; 31.10)
Low-quality talent management	22.94*** (18.63; 27.25)	15.50*** (11.48; 19.52)	32.04*** (24.08; 39.99)
Candidate characteristics			
Non-routine analytical occupation	16.68*** (11.75; 21.62)	9.35*** (3.87; 14.83)	25.48*** (17.09; 33.88)
Non-routine personal occupation	19.3*** (13.58; 25.02)	16.92*** (10.6; 23.24)	22.20*** (12.96; 31.43)
Routine occupation	26.01*** (20.98; 31.03)	18.35*** (13.56; 23.15)	35.38*** (26.44; 44.32)
Men (candidates)	22.25*** (17.95; 26.54)	15.56*** (11.30; 19.83)	30.42*** (22.37; 38.48)
Women (candidates)	21.97*** (17.58; 26.36)	15.52*** (11.16; 19.87)	29.82*** (21.92; 37.72)
Commute under 30 mins	23.72*** (18.82; 28.62)	18.48*** (13.33; 23.63)	30.38*** (21.84; 38.92)
Commute between 30 and 60 mins	21.94*** (17.2; 26.68)	14.42*** (9.76; 19.09)	30.92*** (22.06; 39.78)
Commute over 60 mins	20.48*** (15.85; 25.11)	13.34*** (8.40; 18.28)	29.23*** (20.84; 37.63)

*Note: WTP estimated from models with controls for personal and workplace characteristics, differences in wage expectations, order of candidates presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 13,912 for all job offers; N = 6,922 for WFH 2-3 days/week offers; N = 6,990 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

Table D3. Employers' willingness to pay for working from home – unweighted estimations (% of wage in an office job, 95% confidence intervals)

Group	All job offers	WFH 2-3 days/week	WFH 5 days/week
All employers – average effect	18.75*** (15.87; 21.63)	12.27*** (9.69; 14.85)	28.19*** (22.05; 34.32)
WFH 2-3 days/week offered	14.27*** (11.30; 17.25)	-	-
WFH 5 days/week offered	23.12*** (19.49; 26.75)	-	-
Employer and workplace characteristics			
WFH workers perceived as more productive	3.33 (-0.17; 6.83)	1.51 (-2.50; 5.51)	5.95** (0.41; 11.49)
WFH workers perceived as less productive	23.72*** (20.23; 27.21)	15.83*** (12.70; 18.96)	34.69*** (27.51; 41.87)
WFH perceived as beneficial for the company	9.47*** (6.45; 12.5)	4.51*** (1.31; 7.72)	16.64*** (11.20; 22.08)
WFH perceived as not beneficial for the company	25.69*** (21.86; 29.53)	18.05*** (14.60; 21.5)	37.16*** (29.06; 45.27)
High-quality talent management	14.87*** (10.31; 19.44)	10.77*** (5.84; 15.70)	20.84*** (13.02; 28.66)
Low-quality talent management	19.78*** (16.65; 22.92)	12.65*** (9.83; 15.47)	30.14*** (23.53; 36.76)
Candidate characteristics			
Non-routine analytical occupation	12.86*** (9.11; 16.61)	5.82*** (1.80; 9.85)	22.65*** (15.72; 29.58)
Non-routine personal occupation	16.89*** (12.38; 21.41)	13.47*** (8.67; 18.26)	21.92*** (14.03; 29.81)
Routine occupation	22.40*** (18.64; 26.15)	15.18*** (11.72; 18.65)	33.19*** (25.66; 40.73)
Men (candidates)	18.67*** (15.51; 21.83)	12.27*** (9.19; 15.35)	27.97*** (21.41; 34.52)
Women (candidates)	18.83*** (15.63; 22.04)	12.32*** (9.24; 15.40)	28.42*** (21.77; 35.07)
Commute under 30 mins	20.12*** (16.48; 23.75)	14.61*** (10.97; 18.26)	28.5*** (21.29; 35.71)
Commute between 30 and 60 mins	19.32*** (15.73; 22.92)	12.67*** (9.15; 16.19)	28.85*** (21.65; 36.05)
Commute over 60 mins	16.74*** (13.30; 20.19)	9.22*** (5.63; 12.80)	27.39*** (20.33; 34.45)

*Note: WTP estimated from models with controls for personal and workplace characteristics, differences in wage expectations, order of candidates presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 15,440 for all job offers; N = 7,634 for WFH 2-3 days/week offers; N = 7,806 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

Table D4. Employers' willingness to pay for working from home – multinomial probit choice model (% of wage in an office job, 95% confidence intervals)

Group	All job offers	WFH 2-3 days/week	WFH 5 days/week
All employers – average effect	21.12*** (17.47; 24.78)	14.25*** (10.99; 17.52)	30.51*** (23.08; 37.94)
WFH 2-3 days/week offered	16.68*** (12.98; 20.37)	-	-
WFH 5 days/week offered	25.39*** (20.87; 29.91)	-	-
Employer and workplace characteristics			
WFH workers perceived as more productive	4.47** (0.42; 8.52)	2.65 (-2.02; 7.31)	6.88** (0.38; 13.38)
WFH workers perceived as less productive	26.21*** (21.80; 30.62)	17.95*** (13.97; 21.93)	37.01*** (28.40; 45.62)
WFH perceived as beneficial for the company	11.80*** (8.05; 15.55)	6.34*** (2.45; 10.23)	19.17*** (12.65; 25.70)
WFH perceived as not beneficial for the company	27.72*** (23.00; 32.43)	19.98*** (15.67; 24.29)	38.55*** (29.13; 47.98)
High-quality talent management	17.61*** (12.21; 23.01)	13.61*** (7.67; 19.56)	23.06*** (14.22; 31.91)
Low-quality talent management	22.00*** (18.06; 25.94)	14.40*** (10.88; 17.93)	32.36*** (24.44; 40.28)
Candidate characteristics			
Non-routine analytical occupation	16.21*** (11.66; 20.76)	8.78*** (3.94; 13.62)	26.24*** (17.80; 34.68)
Non-routine personal occupation	18.99*** (13.65; 24.34)	15.26*** (9.65; 20.86)	24.21*** (14.76; 33.67)
Routine occupation	24.55*** (19.92; 29.18)	16.92*** (12.66; 21.18)	35.14*** (26.24; 44.04)
Men (candidates)	21.04*** (17.11; 24.96)	14.16*** (10.42; 17.90)	30.38*** (22.45; 38.31)
Women (candidates)	21.22*** (17.20; 25.25)	14.39*** (10.54; 18.24)	30.59*** (22.68; 38.49)
Commute under 30 mins	23.09*** (18.52; 27.66)	17.38*** (12.81; 21.95)	31.19*** (22.60; 39.79)
Commute between 30 and 60 mins	20.83*** (16.48; 25.18)	13.08*** (8.94; 17.22)	31.17*** (22.42; 39.93)
Commute over 60 mins	19.30*** (15.09; 23.50)	11.99*** (7.66; 16.32)	29.27*** (21.02; 37.52)

*Note: WTP estimated from models with controls for personal and workplace characteristics, differences in wage expectations, order of candidates presented on the screen, and vignette number. Full estimation results are available upon request. Standard errors clustered at the participant level. N = 15,440 for all job offers; N = 7,634 for WFH 2-3 days/week offers; N = 7,806 for WFH 5 days/week offers. *** p<0.01, ** p<0.05, * p<0.1.*

Source: Own estimations using data gathered for the experiment.

Appendix E. Cluster analysis (experiment with employers)

We estimate a latent class logit model to detect classes of managers with similar preferences regarding the number of days to WFH. This model is data-driven. We model the participant's utility as:

$$U_{ijv} = \alpha_0 + \alpha_1 W_j + \alpha_2 O_j + \epsilon_{jiv} \quad \text{(e1)}$$

The notation convention is analogous to the model (6) in the paper. We allow information regarding the manager's personal and company characteristics to determine class membership. The wage coefficient varies between classes. We decided three is the optimal number of clusters based on the BIC, AIC, and CAIC criteria (Table E1). The estimated WTP valuations of WFH are presented in Table 12.

Table E1. Information criteria for a latent class logit model depending on the number of classes.

Number of classes	BIC	AIC	CAIC
2	9205.7	8997.2	9244.7
3	8957.0	8556.1	9032.0
4	9118.7	8525.3	9229.7
5	9274.1	8488.3	9421.1

Source: Own calculations using data gathered for the experiment.

We estimated a multinomial logistic regression to quantify associations between manager and firm-level characteristics and allocation to particular clusters. We model the probability of an individual belonging to class *c* as

$$\Pr(\text{Class}_i = c) = \frac{1}{1 + \sum_{m=2}^{k} \exp(\beta_{mP} P_i + \beta_{mQ} Q_i)} \; if \; c = 1$$

Or

$$\Pr(\text{Class}_i = c) = \frac{\exp(\beta_{cP} P_i + \beta_{cQ} Q_i)}{1 + \sum_{m=2}^{k} \exp(\beta_{mP} P_i + \beta_{mQ} Q_i)} \; if \; c > 1 \quad \text{(e2)}$$

The notation convention is analogous to model (2) in the main text. Additionally, we consider class 1 (*c*=1) as the base outcome of *k* possible outcomes. The key results, presented as marginal effects, are shown in Table E2, including descriptive statistics for particular clusters.

Table E2. Cluster characteristics: descriptive statistics and marginal effects from multinomial logistic regressions

	Marginal effects						Descriptives (%)		
	class 1		class 2		class 3		class 1	class 2	class 3
Manager's beliefs and demographic characteristics									
WFH in the last month full time	-0.247***	(0.044)	-0.006	(0.041)	0.253***	(0.043)	5.1	16.0	32.5
WFH in the last month part-time	-0.192***	(0.031)	0.099***	(0.031)	0.093***	(0.029)	31.5	59.3	42.5
WFH workers perceived as more productive	-0.168***	(0.032)	0.034	(0.032)	0.133***	(0.032)	7.7	29.1	38.3
WFH perceived as beneficial for the company	-0.074***	(0.025)	0.084***	(0.027)	-0.011	(0.024)	29.1	53.5	47.9
Aged 20-34	-0.074***	(0.027)	0.056*	(0.029)	0.019	(0.025)	13.4	23.0	22.2
Aged 50-64	0.040	(0.029)	-0.088***	(0.030)	0.048	(0.030)	35.1	20.7	24.8
Education: Tertiary	0.041	(0.027)	0.067**	(0.028)	-0.108***	(0.027)	61.3	70.2	45.3
Village	-0.011	(0.037)	-0.051	(0.037)	0.062*	(0.035)	20.3	13.4	18.1
Small town <= 20,000	-0.118***	(0.041)	0.020	(0.044)	0.099**	(0.040)	8.6	10.6	14.0
City >500,000	-0.094***	(0.033)	0.019	(0.035)	0.075**	(0.032)	16.9	25.4	20.9
Company experience with WFH									
All workers able to WFH before COVID-19	-0.150***	(0.049)	-0.016	(0.051)	0.166***	(0.054)	2.0	12.7	19.3
Some workers able to WFH before COVID-19	0.116***	(0.032)	-0.011	(0.031)	-0.105***	(0.030)	24.8	46.0	45.9
All workers able to WFH during COVID-19	0.116***	(0.041)	0.005	(0.041)	-0.121***	(0.028)	13.5	27.6	21.5
Some workers able to WFH during COVID-19	-0.025	(0.034)	-0.109***	(0.041)	0.134***	(0.039)	50.8	60.7	53.1
All workers able to WFH after COVID-19	-0.112**	(0.052)	0.132**	(0.057)	-0.021	(0.049)	3.1	18.3	18.5
Some workers able to WFH after COVID-19	0.091***	(0.035)	-0.025	(0.035)	-0.066**	(0.034)	37.5	57.8	53.0
Firm characteristics									
Agriculture (A)	0.028	(0.084)	0.077	(0.084)	-0.106	(0.069)	3.6	4.8	2.0
Industry (B-F)	-0.075**	(0.032)	-0.023	(0.033)	0.098***	(0.031)	22.4	26.0	39.0
Other services (O-S)	0.062**	(0.027)	-0.036	(0.027)	-0.026	(0.024)	44.9	29.9	27.4
Public company	-0.044*	(0.026)	-0.086***	(0.026)	0.130***	(0.027)	28.7	21.3	35.3
Company size < 10	0.050	(0.037)	0.010	(0.036)	-0.060*	(0.035)	16.6	13.5	15.0
Company size >249	-0.034	(0.033)	0.168***	(0.034)	-0.134***	(0.033)	22.3	31.2	14.6

*Note: Standard errors clustered at the participant level. *** p<0.01, ** p<0.05, * p<0.1. Reference groups: no WFH in the last month, WFH not beneficial, WFH not productive, workers not able to WFH before COVID-19, workers not able to WFH during COVID-19, workers not able to WFH after COVID-19, workers not ready to WFH within a week, Business services (G-N) company activity, a private company, low-quality talent management, company size 10-49, 35-49 years old (employer), men (employer), secondary education (employer), large town.*

Source: Own calculations using data gathered for the experiment.

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