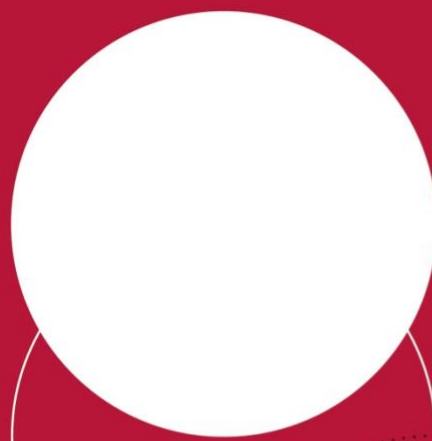# Working from Home and Job Satisfaction: A Mediating Effect of Organisational Culture

Zuzanna Kowalik

Working from Home and Job Satisfaction: A Mediating Effect of Organisational Culture[1]

Zuzanna Kowalik♦

Abstract

The widespread shift to remote work during the COVID-19 pandemic accelerated a debate on its impact on employee satisfaction. Despite assumptions that greater flexibility and autonomy would inherently boost job satisfaction, research findings have been inconsistent. A key mechanism that might help explain these mixed outcomes is organisational culture. This study, based on unique linked employer-employee panel data, examines how various dimensions of corporate culture are associated with job satisfaction among remote and on-site workers. The findings reveal that working from home (WFH) enhances job satisfaction, particularly within companies characterised by weaker organisational cultures in the area of communication, leadership and supervision. Importantly, this effect varies significantly by gender: men predominantly benefit from WFH in weaker cultural contexts, while women experience increased satisfaction primarily in organisations with strong supportive cultures. Personality traits, including extraversion and agreeableness, further moderate these relationships. These results highlight the importance of aligning remote work policies with organisational culture to effectively address gender differences and ensure broad-based improvements in employee satisfaction and workplace well-being.

Keywords: Working from home, Job satisfaction, Organisational culture, Gender differences, Remote work

JEL: M54, J81, J28, J16

♦ zuzanna.kowalik@ibs.org.pl

Table of contents

1. Introduction

The shift toward working from home (WFH) has transformed modern work practices, with significant implications for individual well-being and organisational dynamics. The researcher's interest in WFH has evolved over time, starting in the early 2000s with the rise of the internet and gaining unprecedented momentum in the post-pandemic era, where it became a mainstream practice. The demand for WFH rose significantly as employees recognised its potential to enhance work-life balance, while many employers saw it as an opportunity to reduce operational costs.

Working from home offers several benefits. Increased flexibility allows teleworkers to choose their working hours, manage their time more effectively and enjoy the freedom to work for multiple employers or navigate challenges like disability or caregiving responsibilities (Aczel et al., 2021). The reduction in commuting not only saves time and costs but also contributes to lower stress levels (Bentley et al., 2016). From the employer's perspective, telework gives access to a diverse talent pool, including skilled individuals with disabilities or caregiving responsibilities. Despite debates on productivity, some evidence suggests increased productivity among teleworkers, attributed to fewer interruptions, longer working hours, and motivation to prove the success of this alternative work mode (Hackney et al., 2022).

Many organisations are currently navigating decisions on which work model to implement—remote, hybrid, or a full return to office-based work. Managers are particularly interested in understanding how these choices might influence key job outcomes, including job satisfaction, which has become an important topic for researchers in labour sociology and organisational psychology, as well as for HR department practitioners (Bakker and Demerouti, 2017; Frederiksen, 2017; Harter et al., 2002; Kalleberg, 1977). However, research presents an ambiguous picture of the link between WFH and job satisfaction, with some studies reporting contradictory findings and an unclear direction of association (Allen et al., 2015; Gajendran and Harrison, 2007). A question arises - what factors mediate or moderate the relationship between remote work and employee job satisfaction?

In this paper, I explore the potential moderating factor of the organisational culture. It is likely that the positive effects of WFH on job satisfaction manifest more often in organisational environments characterised by effective communication, clear guidance, and mutual understanding. In contrast, companies lacking these cultural traits may face greater challenges in implementing WFH, with employees potentially deriving fewer benefits from remote work in such contexts. To answer my research question, I use a unique set of data called the Linked Personnel Panel, gathered by a German federal research institute, *Institut für Arbeitsmarkt- und Berufsforschung*, which links survey data from organisations and their employees. The dataset includes a set of questions on the organisational culture, which allows me to measure its mediating effect on the relationship between working from home and employees' satisfaction.

2. Theoretical framework and research hypotheses

2.1. Positive impacts of working from home on job satisfaction

Research highlights several ways by which WFH might positively impact job satisfaction, particularly through improvements in work-life balance and increased autonomy. WFH arrangements allow employees to better manage personal and professional responsibilities, contributing to higher job satisfaction (Imrul et al., 2022; Orešković et al., 2023). The flexibility inherent in remote work settings allows employees to meet work and family obligations more effectively, often leading to an enhanced sense of well-being.

A key factor in increasing the job satisfaction of remote workers is greater autonomy. For workers, autonomy means more control over how they organise their tasks and manage their time, which research has shown to be closely associated with higher job satisfaction levels (Gajendran and Harrison, 2007; Jamaludin and Kamal, 2023; O'Neill et al., 2009; Sardeshmukh et al., 2012; Smirnych, 2023). Furthermore, increased autonomy can also help to alleviate psychological strain (Bakker and Demerouti, 2017).

Another significant benefit of WFH for job satisfaction is the elimination or reduction of commuting, which is associated with reduced stress and improved perceptions of one's job (Stephens and Szajna, 1998; Wheatley, 2012). Elimination of the time and stress associated with daily commutes means more time for personal activities and a greater sense of control, which further boosts job satisfaction. WFH also reduces work pressure and role conflict (Sardeshmukh et al., 2012), factors often linked to job-related stress and satisfaction. Similarly, the reduction in in-office distractions and fewer lengthy meetings characteristic of remote work can reduce stress and further enhance job satisfaction (Fonner & Roloff, 2010).

2.2 Challenges and negative aspects

While working from home offers many advantages, it can also lead to several challenges that negatively affect job satisfaction. Key concerns include social and professional isolation, reduced career advancement opportunities, boundary-blurring between work and personal life, and psychological distress (Charalampous et al., 2019; Van Zoonen and Sivunen, 2022). For instance, remote work can exacerbate feelings of isolation from colleagues and the broader organisational network, as teleworkers have fewer opportunities for in-person interaction and informal networking. This isolation can impact employees' sense of belonging and reduce their visibility within the organisation, which can, in turn, hinder career progression (Zöllner & Sulíková, 2021; Whittle & Mueller, 2009). WFH may also increase the prevalence of "presenteeism," where employees feel compelled to work even when unwell, which can negatively impact both health and productivity (Nowrouzi-Kia et al., 2024). Additionally, limited technical support can pose significant challenges for remote employees and ultimately lead to "technostress" (Elama and Garg, 2024).

Another challenge associated with WFH is the blurring of boundaries between work and home life. This boundary-blurring can result in longer working hours and lead to excessive workloads, often

culminating in emotional exhaustion and a decline in job satisfaction (Smirnych, 2023). Prolonged hours spent working from home also reduce opportunities for effective psychological restoration, which is essential for sustained well-being (Hartig et al., 2007). Additionally, home-centred teleworkers experience greater non-job-related stress compared to office-centred teleworkers and traditional office workers, as the overlap of professional and domestic responsibilities contributes to heightened stress levels and impacts job satisfaction (Konradt et al., 2003).

WFH may also limit access to essential career development resources, such as mentorship, performance feedback, and visibility within professional networks. Teleworkers are often excluded from informal knowledge-sharing opportunities and have limited access to the necessary work equipment and resources, impacting their performance and growth potential (Huws, 1993; Illegems and Verbeke, 2004; Manoochehri and Pinkerton, 2003). Furthermore, remote employees may face greater role ambiguity, decreased support from supervisors, and fewer chances for social and professional interactions, all of which are important for career satisfaction and growth (O'Neill et al., 2009; Whittle and Mueller, 2009).

Lastly, these cumulative challenges can contribute to a decline in teleworkers' psychological well-being, manifesting as feelings of loneliness, irritability, worry, and guilt (Mann and Holdsworth, 2003). Thus, while WFH provides notable benefits, it can also introduce significant barriers to job satisfaction if not managed with adequate organisational support and clear boundaries.

2.3 The influence of organisational policies and individual differences on the relationship between working from home and job satisfaction

Organisational strategies play a fundamental role in shaping telework experiences (Wang et al., 2013) and influence the job satisfaction of teleworkers (Atobishi and Nosratabadi, 2023; Golden and Veiga, 2005; Illegems and Verbeke, 2004). Studies emphasise that effective HR practices, including clear job descriptions, enhanced feedback mechanisms, and improved communication structures, are crucial in reducing role ambiguity and fostering a supportive environment for teleworkers (Belanger et al., 2012; Sardeshmukh et al., 2012). Furthermore, organisational social support, encompassing management practices that emphasise communication, transparency, and trust, has been shown to influence job satisfaction positively (Bentley, 2016; Kowalski and Swanson, 2005). In organisations where supervisors practice an information-sharing approach and engage in regular feedback, teleworkers report higher job satisfaction, improved performance, and reduced work-family conflict (Lautsch et al., 2009).

Another key factor influencing job satisfaction during WFH is the role of individual personality and motivational traits. Teleworkers with personality traits such as high autonomy and achievement motivation often adapt more effectively to remote work settings (O'Neill et al., 2009). For instance, teleworkers who are naturally sociable or require less in-person interaction may experience higher job satisfaction in WFH arrangements, especially if these preferences align with the organisational culture and policies in place. This suggests that the selection of individuals for telework should consider both job-related factors and individual characteristics to enhance effectiveness and satisfaction in remote roles.

2.1. Research hypotheses

Based on my research question and theoretical framework, I developed the following research hypotheses:

1. *WFH is positively associated with job satisfaction*
   a. Employees who work from home, either fully or occasionally, report higher levels of job satisfaction compared to those who do not work from home.
2. *Corporate culture moderates the relationship between WFH and job satisfaction*
   a. Employees working in organisations with a strong corporate culture report higher job satisfaction overall.
   b. WFH may serve as a "protective factor" against poor management in organisations with a weaker corporate culture
   c. The moderating effect differs between genders
3. *The relationship between WFH and job satisfaction varies by employment type*
   a. Employees who work only remotely do not experience the same benefits of remote work compared to occasional remote work

3. Data and method

I use the linked employer-employee panel data gathered by the Institut für Arbeitsmarkt- und Berufsforschung (IAB). The Linked Personnel Panel (LPP) dataset includes panel survey data from private-sector establishments with at least 50 employees and their workforce (Haylock and Kampkötter, 2019). The initial wave of the LPP was conducted in 2012/2013, with additional waves occurring every two years, up to the fifth wave in 2020/2021. This dataset focuses on areas within organisational studies, covering topics such as workforce planning and recruitment, personnel development, corporate culture, performance-based pay, digitisation, and employee commitment, among others[2].

I use the last two waves of data, which cover the period from 2018 to 2021, as these waves include the complete set of questions on corporate culture. During the fourth wave (2018), interviews were conducted with 769 establishments (including 248 refresher samples) and 6,494 employees (3,259 being refreshers). In the fifth wave (2020), the survey included 770 establishments (430 refreshers) and 7,397 employees (3,331 refreshers).

---

[2] See details at https://iab.de/en/the-iab/surveys/the-iab-establishment-panel/

3.1.   Variables

Job satisfaction

The key outcome variable, job satisfaction, is derived from responses to the question, "Are you satisfied with your work?" This is measured on a Likert scale from 0 to 10, which I recode into an indicator variable by categorising responses of 0-5 as "not satisfied" and 6-10 as "satisfied.".

Working from home

The work-from-home measure is based on the question: "Do you work from home for your employer, even if only occasionally?" which was asked for the first time in the second wave (2014). In the fourth wave (2018), the survey does not distinguish between people who work remotely, even occasionally and those who work fully remotely.

Corporate culture

I use twelve questions on corporate culture present in the LPP (see Table 2). These questions were consistently asked only across the last two waves, so I restricted my analysis to these waves. All questions used are detailed in the Table below. Each question was rated on a scale from 0 ("strongly disagree") to 5 ("strongly agree"), allowing individuals to assess their company's corporate culture with a total score ranging from 0 to 60. This overall assessment is captured by the variable *Culture Index Total*.

Table 2 List of questions about corporate culture

	Corporate culture: dimension	Statement
1	Corporate culture: good understanding	A: People have a good understanding of what the organization is trying to do.
2	Corporate culture: long-term plans	B: Everyone who works here is well aware of the long-term plans and direction of this company.
3	Corporate culture: confidence	C: Supervisors show that they have confidence in those they manage.
4	Corporate culture: good guidance	D: Supervisors can be relied upon to give good guidance to people.
5	Corporate culture: understanding	E: Supervisors show an understanding of the people who work for them.
6	Corporate culture: no discrimination	G: No one working here is discriminated because of his/her sex, age, nationality, religious affiliation, handicap, sexual orientation or skin colour.
7	Corporate culture: clear communication	H: The superiors clearly communicate requirements and objectives.
8	Corporate culture: charitable and non-profit projects	J: Management also supports charitable and non-profit projects outside the company.
9	Corporate culture: creating meaning through work	K: My work helps me to experience my life as meaningful
10	Corporate culture: employer goals and society/environment	L: My employer does not exclusively pursue financial goals, but also goals that benefit society or the environment.
11	Corporate culture: an important contribution to operation	M: I make an important contribution to my business with my work

12	Corporate culture: meaningful contribution to society	N: With my work, I make a meaningful contribution to society

In the next step, I use Principal Component Analysis (PCA) to reduce the likely correlated questions into a set of linearly uncorrelated components. This step's goal is to retain as much information as possible while reducing the number of dimensions. The procedure is described step by step in the "Method" section. The final value of the corporate culture variable is obtained by averaging employee responses at the company-year level.

Personality
Additionally, my analysis incorporates questions on personality traits, categorised under the "Big Five" personality dimensions. I group 15 specific traits from the dataset (e.g., "thorough," "communicative," "original," "forgiving," "outgoing," "nervous," "considerate," and others) into five dimensions: extraversion, neuroticism, openness, conscientiousness, and agreeableness. (McCrae and Costa, 1987). Each dimension is a categorical variable with values ranging from 0 to 3. Additionally, I incorporate three questions on self-efficacy[3], which I also use to create a categorical variable with values 0 to 3.

3.2.   Sample structure

I limit the sample to individuals aged 20 to 69 and exclude freelancers, self-employed and assisting family members. The ultimate dataset (excluding any missing variables of interest) consists of 9291 individuals surveyed across two waves (2018 and 2020), including 26% women and 74% men. Among women, 47.4% work from home, and 80.6% are satisfied with their jobs. For men, the shares are 42.3% and 81.7%, respectively.

Average job satisfaction does not vary significantly from wave to wave. Between 2012 and 2020, it dropped from 88% to 81.1%, and it stayed relatively unchanged between 2018 and 2020.

Due to the COVID pandemic, the prevalence of working from home sharply increased between 2018 (32.2%) and 2020 (52.7%). But even before COVID, working from home had been becoming more popular, increasing from 19% to 32.2% between 2012 and 2018. In 2020, around 30.2% of those working remotely worked fully from home, including 34.5% of females and 28.4% of males.

3.3.   Method
The analysis pools respondents across survey waves and estimates logistic regression models to examine the likelihood of experiencing job satisfaction. The baseline model includes only the survey year, the WFH variable, and a set of demographic controls[4]. Subsequent models incorporate additional

---

[3] The questions include following statements: I can rely on my own abilities in difficult situations (607a), I am able to solve most problems on my own (607b), I can usually solve even challenging and complex tasks well (607c).
[4] Gender, being a migrant, tertiary education, age (recoded into three groups: 20-34; 35-54;55-69), living in a household with a partner

factors, such as quantiles denoting the quality of corporate culture in a given enterprise, employment characteristics[5], and personality traits. Since some respondents appear in multiple survey waves, I compute robust standard errors to account for the non-independence of observations.

In the next stages of the analysis, I compare individuals who work fully remotely with those who work from home only occasionally. To achieve this, marginal effects from the logit model are calculated, which estimate the predicted probabilities of job satisfaction for respondents, grouped by type of remote work (fully or partially remote) and the perceived quality of their company's corporate culture.

To study the job satisfaction of remote workers, logistic regressions were estimated,

$$\Pr(\text{job satisfaction} = 1) = F(\beta_0 + \beta_1 wfh + \beta_2 q5\_corp\_cult + \beta_3(wfh \times q5\_corp\_cult) + \beta_4 X + \varepsilon) \tag{1}$$

where **job satisfaction** indicates whether an employee is satisfied with their job, $F(Z) = \frac{e^Z}{1+e^Z}$ is a logistic function, wfh is a dummy variable for working from home/fully working from home, $q5\_corp\_cult$ is a binary variable indicating the quality of corporate culture, based on the enterprise's position within a specified quantile distribution. The interaction term $wfh \times q5\_corp\_cult$ captures whether the effect of corporate culture on job satisfaction differs between employees who do and do not work from home. X is a vector including individual-level controls (such as gender, age, education and personality traits), employment-related characteristics, and indicators for the survey wave.

Principal Component Analysis

I conducted the Principal Component Analysis (Jolliffe, 2002) using the twelve questions on corporate culture (see Table 2) to understand how these questions correlate with each other and whether it is possible to reduce their number in the analysis, which would be optimal to test my research hypotheses. To determine the optimal number of principal components, I consider the cumulative explained variance, seeking a threshold above 50%, as well as the Kaiser criterion, which recommends retaining components with eigenvalues greater than one

Table 3 presents the eigenvalues of the components and the cumulative variance they explain. Although the third component's eigenvalue does not exceed one, I decided to include three components in my analysis, as the cumulative variance of the first two barely exceeded 50%.

Table 3 The eigenvalues and cumulative explained variance of components

Component	Eigenvalue	Proportion	Cumulative
Comp1	4.857	0.405	0.405
Comp2	1.202	0.100	0.505
Comp3	0.973	0.081	0.586
Comp4	0.848	0.071	0.657
Comp5	0.809	0.067	0.724

---

[5] Permanent employment, working part-time, working over 48 hours a week, the logarithm of net salary, functional area (production, sales/marketing, cross-sect/admin, services), working in a big company (over 250 workers).

Comp6	0.683	0.057	0.781
Comp7	0.573	0.048	0.829
Comp8	0.490	0.041	0.870
Comp9	0.467	0.039	0.909
Comp10	0.389	0.032	0.941
Comp11	0.373	0.031	0.972
Comp12	0.337	0.028	1.000

Table 4 shows the component loading of three chosen components (rotated for better interpretability) and twelve questions on corporate culture included in the survey. Loadings indicate how strongly each variable is associated with a particular component. Higher absolute values suggest a stronger relationship between the variable and the component. The column labelled "Unexplained" represents the portion of the variance in each original variable that is not explained by the extracted components. Lower values indicate that the components are capturing more of the variable's variance, while higher values suggest that a significant portion of the variance remains unexplained.

Table 4. Component loadings – association of components with variables on corporate culture.

	Communication, Leadership & Supervision	Personal Contribution & Work Meaningfulness	Ethical Responsibility and Societal Impact	Unexplained
A: People have a good understanding of what the organisation is trying to do.	**0.284**	0.066	0.154	0.490
B: Everyone who works here is well aware of the long-term plans and direction of this company.	**0.244**	0.024	**0.262**	0.484
C: Supervisors show that they have confidence in those they manage.	**0.450**	-0.017	-0.049	0.333
D: Supervisors can be relied upon to give good guidance to people.	**0.449**	-0.002	-0.060	0.331
E: Supervisors show an understanding of the people who work for them.	**0.451**	-0.061	-0.051	0.367
G: No one working here is discriminated because of his/her sex, age, nationality, religious affiliation, handicap, sexual orientation or skin colour.	0.228	0.025	0.039	0.769
H: The superiors clearly communicate requirements and objectives.	**0.429**	-0.016	-0.037	0.382
J: Management also supports charitable and non-profit projects outside the company.	-0.042	-0.083	**0.741**	0.249
K: My work helps me to experience my life as meaningful	0.098	**0.460**	0.018	0.467
L: My employer does not exclusively pursue financial goals, but also goals that benefit society or the environment.	0.011	0.129	**0.573**	0.334
M: I make an important contribution to my business with my work	0.017	**0.587**	-0.128	0.432
N: With my work I make a meaningful contribution to society	-0.073	**0.641**	0.051	0.329

Component 1 is highly loaded with variables related to what could be called "*Communication, Leadership & Supervision*". It is most loaded by the variables C, D, E and H, and, in the second place, by A and B. This suggests that Component 1 represents how well leadership provides direction, communicates expectations, and supports employees. I assume that this component will be the best component for analysing working-from-home patterns, as in a remote work environment, clear and consistent communication and leadership play a significant role, and the quality experienced by worker might impact their experience of working from home (Golden and Gajendran, 2019).

Component 2 could be interpreted as "*Personal Contribution & Work Meaningfulness*." This indicates that Component 2 reflects the personal meaning employees derive from their work and their perception of making a contribution. It is highly loaded by the values K, M, and N.

Component 3's highest loadings are J (support for charitable projects), L (employer pursues social/environmental goals) and, to a lesser extent, B (awareness of long-term plans). This could be interpreted as "*Ethical Responsibility and Societal Impact*."

In the next step, I generate new variables containing scores for each principal component. These scores are linear combinations of the original variables, weighted by the loadings (coefficients) of each variable on the principal components. Then, I average them at the company-year level, and standardise them for better interpretability. These variables were incorporated into logistic regression models, either directly or indirectly. I categorise companies into quantiles based on their PC scores for the *Communication, Leadership & Supervision* component—which I argue is theoretically the most relevant for analysing remote work. Each company was assigned a dummy variable indicating its respective quantile[6].

4. Results

4.1. Descriptive statistics

82.2% of workers are satisfied with their job. Working from home is more common among satisfied employees (46%) than non-satisfied employees (33.1%), suggesting that remote work may be linked to higher job satisfaction. Educational attainment of workers according to their satisfaction level differs significantly: 32.7% of satisfied workers have a tertiary education, compared to only 27.1% of the non-satisfied. People who are satisfied with their work rate better the corporate culture of their organisations by 8 points on average. They also score significantly higher on self-efficacy (2.79 vs 2.67), conscientiousness (2.74 vs 2.63), agreeableness (2.43 vs 2.29), openness (2.04 vs 1.96), and extraversion (1.80 vs 1.62). In contrast, neuroticism is higher among non-satisfied employees (0.95 vs. 0.77), indicating a potential link between emotional stability and job satisfaction.

In the sample, 46.6% of individuals work from home, while 53.4% do not. Individuals working from home tend to be more educated (56.4% of remote workers holding tertiary education, compared to

---

[6] The table presenting the mean scores for each question by company quantile is available in the Appendix ([Table A1](#)). Companies in the first quantile score significantly lower across all questions., The largest differences between the "worst" and "best" companies are observed in the questions where Component 1 has the highest loadings.

only 12.5% among non-remote workers), have higher job satisfaction (85.9% compared to 78%), and work longer hours (15.2% vs. 6.1%), while also scoring higher on self-efficacy, (2.80 vs. 2.75), openness (2.12 vs. 1.95), and extraversion (1.83 vs. 1.71). In contrast, neuroticism is lower among remote workers (0.78 vs. 0.82), and conscientiousness is slightly lower as well (2.68 vs. 2.75). They are also less likely to be migrants and tend to rate the organisational corporate culture better[7].

Table 5. Means of selected variables for groups divided based on job satisfaction and working from home

| | Job satisfaction | | Working from home | |
| | Satisfied | Non-satisfied | Working from home | Not working from home |
Variable	Mean	Mean	Mean	Mean
Job satisfaction	1	0	0.859	0.78
Work from home	0.46	0.331	1	0
Culture Index	45.275	37.217	44.925	42.89
Tertiary education	0.327	0.271	0.564	0.125
Working over 48 hours	0.101	0.097	0.152	0.061
Self efficacy	2.79	2.67	2.80	2.75
Conscientiousness	2.74	2.63	2.68	2.75
Agreeableness	2.43	2.29	2.40	2.40
Neuroticism	0.77	0.95	0.78	0.82
Openness	2.04	1.96	2.12	1.95
Extraversion	1.80	1.62	1.83	1.71
N	7638	1653	4334	4957

Note: weighted results.

4.2. Econometric results

To begin testing my hypotheses, I first examine whether working from home (WFH) is positively associated with job satisfaction (H1a). This step is important to establish the baseline relationship between remote work and employee satisfaction before introducing other factors. In particular, I am interested in verifying whether this relationship remains robust when accounting for organisational culture and individual characteristics.

In model A, I include only controls for working from home, demographic, employment characteristics and survey wave fixed effects. In model B, I add three principal component scores for organisational culture, addressing hypothesis 2a about the role of organisational culture in shaping job satisfaction. In model C, I add personality traits.

The results provide support for the hypothesis that working from home is associated with greater job satisfaction. Even after accounting for various individual and organisational characteristics, remote workers are still significantly more likely to report being satisfied with their jobs (β ≈ 0.035 in model C, p < 0.01; see Table 6). Importantly, the findings also highlight the role of organisational culture in

---

[7] Additional statistics, including t-tests comparing satisfied and non-satisfied workers, as well as those working remotely versus on-site, are presented in Tables A4 and A5 in the Appendix.

shaping job satisfaction. Employees in organisations characterised by *strong communication, supportive leadership, and reliable supervision* report significantly higher job satisfaction (β ≈ 0.129, p < 0.01). In contrast, *a sense of purpose or meaningful contribution* does not appear to be associated with job satisfaction in a statistically significant way. Interestingly, greater emphasis on *Ethical Responsibility and Societal Impact* is associated with slightly *lower* satisfaction levels (β ≈ - 0.012, p < 0.01), suggesting that such values, while important, may not compensate for day-to-day organisational dynamics when it comes to employees' satisfaction.

Table 6 The correlates of job satisfaction – working from home and organisational culture (marginal effects from logit models).

	A	B	C
Working from home	0.052***	0.036***	0.035***
	(0.011)	(0.010)	(0.010)
PC: *Communication, Leadership & Supervision*		0.129***	0.122***
		(0.004)	(0.004)
PC: *Personal Contribution & Work Meaningfulness*		0.008	0.006
		(0.004)	(0.004)
PC: *Ethical Responsibility and Societal Impact*		-0.013**	-0.012**
		(0.004)	(0.004)
-----------------------------	---------------------	-------------------	
N	7906	7906	7906

Note: All models include controls for demographic traits (gender, migration background, age group, and education), employment characteristics (sector, size, functional area of one's job), wave, and workplace arrangements (log pay, part-time, long hours). Other statistically significant correlations include (in model C): being a migrant (negative effect, p<0.1), working over 48 hours (negative effect, p<0.1), working in cross-sectional/administration area (ref. production, p<0.1), working in a big company over 250 employees (p<0.1), neuroticism (negative effect, p<0.01), extraversion (positive effect, p<0.05). All estimation results are included in the Table A6.
*Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Among the control variables, several interesting patterns emerge. Being a migrant and working more than 48 hours per week are both associated with lower levels of job satisfaction, although these effects are statistically significant only at the 10% level. Employees working in cross-sectional or administrative roles (compared to those in production) and those employed in larger companies (with more than 250 employees) report slightly higher satisfaction. In contrast, gender, age, income, higher education, having a partner, having a child, working part-time, and having a permanent contract do not show a significant association with job satisfaction in these models.

When it comes to personality traits, agreeableness and extraversion are both positively and significantly associated with higher job satisfaction. Specifically, each increase in agreeableness is linked to a 1 percentage point rise in the probability of being satisfied with one's job, while each increase in extraversion corresponds to a 1.3 percentage point rise. Neuroticism, on the other hand, is associated with a 3.4 percentage point decrease in job satisfaction. Other traits−

conscientiousness, openness, and self-efficacy—show positive, but statistically insignificant, associations[8].

To further explore the role of organisational culture in shaping the relationship between working from home (WFH) and job satisfaction, I tested interaction effects between WFH status and each of the three principal components derived from the corporate culture index. The marginal effects of each component on job satisfaction were calculated separately for employees working remotely and those working on-site (see Table 7).

Table 7 Models with interactions: marginal effects of principal components of organisational culture on job satisfaction, by WFH status

	C	D	E
	PC: *Communication, Leadership & Supervision*	PC: *Personal Contribution & Work Meaningfulness*	PC: *Ethical Responsibility and Societal Impact*
On-site work # PC (1, 2, 3)	0.126***	0.004	-0.015*
	(0.006)	(0.006)	(0.006)
Remote work # PC (1, 2, 3)	0.119***	0.009	-0.009
	(0.006)	(0.006)	(0.006)
N	7906	7906	7906

Note: Columns C, D, and E correspond to interaction models with WFH and PC1 (Communication, Leadership & Supervision), PC2 (Personal Contribution & Meaningfulness), and PC3 (Ethical Responsibility & Societal Impact), respectively. Effects are shown separately for employees not working from home (on-site work) and those working from home (remote work). All models include controls for demographic traits (gender, migration background, age group, and education), employment characteristics (sector, size, functional area of one's job), wave, and workplace arrangements (log pay, part-time, long hours). Robust standard errors in parentheses. *** p < 0.01, * p < 0.1.

The results indicate that Component 1 – Communication, Leadership & Supervision – has the strongest and most robust association with job satisfaction in both groups. A one standard deviation increase in this component is associated with a 12.6 percentage point increase in job satisfaction for on-site workers, and an 11.9 percentage point increase for remote workers (both effects statistically significant at $p < 0.01$). These findings suggest that while all three dimensions capture important elements of organisational culture, it is the quality of internal communication, managerial support, and leadership clarity that most consistently and meaningfully predicts employee satisfaction across work modalities. For this reason, I focus on Component 1 in the subsequent mediation analysis as the most theoretically and empirically relevant dimension of culture.

To deepen the analysis and delve into the second set of hypotheses (H2), I next investigate how the *quality* of corporate culture, in the domain of communication, leadership, and supervision, shapes the relationship between working from home and job satisfaction. According to H2a, employees embedded in organisations with stronger cultures should experience higher satisfaction overall, while H2b suggests that WFH might act as a buffer in companies with weaker management structures. To test these assumptions, I focus on the first principal component of organisational culture and compare employees across firms with different levels of this component by introducing control variables for

---

[8] Full model estimates are presented in the Table A6 in the Appendix.

quantile-based groupings. This allows me to observe whether job satisfaction varies systematically depending on the cultural environment workers are situated in, and whether remote workers are differently affected by these conditions. In model A, I control only for demographic traits and employment characteristics. In model B, I add controls for corporate culture. In model C, I add interaction terms and controls for personality traits.

Again, people who work from home are slightly more likely to be satisfied with their jobs, the effect being robust to changing the model specification (4.1 pp. in model C, p < 0.01, Table 8). I find evidence that the quality of corporate culture pertaining to communication, leadership, and supervision matters for job satisfaction. Workers in companies with the worst culture are 10.8 pp. less likely to report job satisfaction compared to those in companies with an average culture (i.e. those in the 3rd quartile - the reference group). In contrast, workers in companies with the best corporate culture are 7.9 pp. more likely to report job satisfaction. Moreover, workers in companies where culture has a strong component of "Personal Contribution & Work Meaningfulness" report slightly higher job satisfaction (β ≈ 0.011, p < 0.1), while those in companies with a stronger component of "Ethical Responsibility" are slightly less likely to report job satisfaction (β ≈ -0.029, p < 0.01)[9].

Table 8. The correlates of job satisfaction (marginal effects from logit models with fixed effects for quantile-based grouping).

	A	B	C
Working from home	0.051***	0.041***	0.041***
	(0.010)	(0.010)	(0.010)
1st quantile (PC: Communication)		-0.123***	-0.108***
ref. 3rd quantile		(0.015)	(0.015)
2nd quantile (PC: Communication)		-0.032*	-0.031*
ref. 3rd quantile		(0.013)	(0.013)
4th quantile (PC: Communication)		0.031*	0.028*
ref. 3rd quantile		(0.012)	(0.012)
5th quantile (PC: Communication)		0.083***	0.079***
		(0.012)	(0.012)
PC: Personal Contribution & Work Meaningfulness		0.014**	0.011*
		(0.005)	(0.005)
PC: Ethical Responsibility and Societal Impact		-0.031***	-0.029***
		(0.005)	(0.005)
----------------------------------	-----------------	------------------	--------------------
N	7906	7906	7906

Note: All models include controls for demographic traits (gender, migration background, age group, and education), employment characteristics (sector, size, functional area of one's job), wave, and workplace arrangements (log pay, part-time, long hours). Other statistically significant correlations include: being a migrant (p<0.1), All estimation results are included in the Table A7.
*Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

---

[9] Full model estimates, including all coefficients and marginal effects for interaction terms, are presented in Table A7 in the Appendix.

Importantly, corporate culture moderates the relationship between working from home on job satisfaction. Across the corporate culture distribution, remote workers are more likely to report job satisfaction than on-site workers. However, the largest and statistically significant gap emerges in companies with the poorest cultures (see Figure 2). People working only on-site in companies with the worst culture are 68.5% likely to report job satisfaction, while for people working from home, this amounts to 77.5% (9 pp. difference). At the same time, the difference between those working remotely in on-site are not statistically significant in the remaining four quantiles.

Figure 2. Marginal Effects of WFH on Job Satisfaction across Corporate Culture Quantiles

Quantiles based on the PC: Communication, Leadership and Supervision

On-site Remote
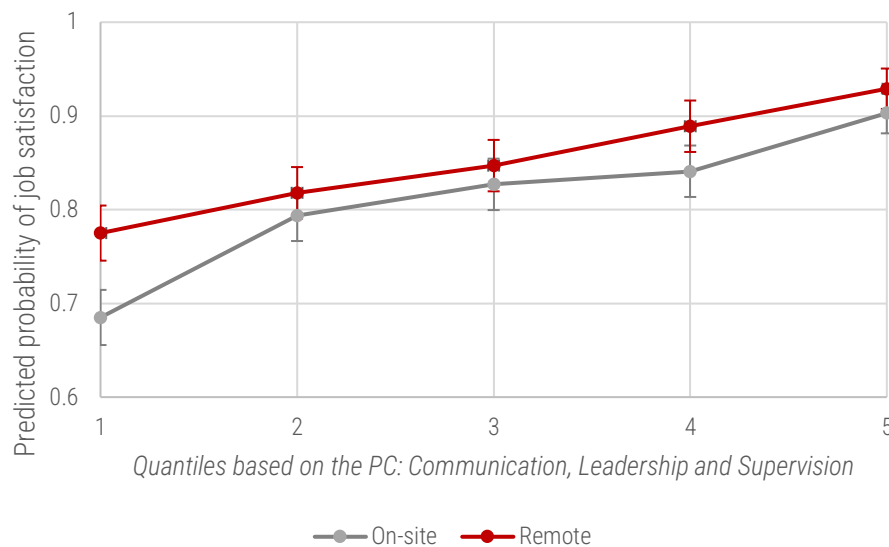
Note: Marginal effects are presented in Table A7, column D. The model specification is identical to that used in model C from Table 8 and Table A7.

This finding provides support for Hypothesis 2b, which states that working from home may serve as a "protective factor" against poor management practices. It appears that in environments where organisational support, leadership, and communication are weakest, the flexibility and autonomy afforded by remote work help shield employees from the negative effects of an unsupportive culture. In contrast, in companies with average or strong cultures (quantiles 2–5), differences between remote and on-site workers are smaller and not statistically significant, suggesting that when internal structures are sound, the added benefit of working remotely becomes less critical for job satisfaction.

Building on the previous results, I next turn to the gender dimension of the relationship between working from home, corporate culture, and job satisfaction. Existing research highlights that gender often plays a crucial role in shaping remote work experiences and outcomes (Esposito et al., 2024). Therefore, to test Hypothesis 2c, I estimate the models specified in Table 8 separately for men and women.

The results reveal distinct patterns for men and women. First, in organisations with the weakest corporate culture (1st quantile), women (see Figure 3, right panel) have lower probability of job satisfaction than men (left panel) in both remote and on-site settings, suggesting that poor organisational culture more strongly undermines women's job satisfaction regardless of the work

arrangement. Among men, the largest discrepancies between those working on-site and remotely exist within organisations characterised by the weakest corporate culture (Figure 3, left panel). In such companies, men working on-site have a significantly lower probability of being satisfied (70%) than their remote counterparts (81.6%). As the corporate culture improves, the gap declines and ceases to be statistically significant. This suggests that for men, remote work may serve as a buffer that shields employees from some adverse effects of a weak organisational culture, such as unclear expectations or micromanagement.

In contrast, for women, the interaction between working from home and corporate culture follows a different pattern - across quantiles 1 to 4, job satisfaction improves with better culture, but the differences between women working remotely or on-site are not statistically significant (see Figure 3, right panel). It is only in the top 20% of firms (the highest quantile) that a statistically significant difference emerges – remote-working women exhibit significantly higher predicted job satisfaction (96.6%) than those working only on-site (88.6%). This pattern suggests that women benefit much more from the flexibility of remote work when they are embedded in highly supportive and communicative environments, where they can take full advantage of remote work without facing professional isolation or reduced visibility. These differences between genders are stable, regardless of parenting status[10].

Figure 3. Gender differences: Marginal Effects of WFH on Job Satisfaction across Corporate Culture Quantiles (left panel: men, right panel: women)
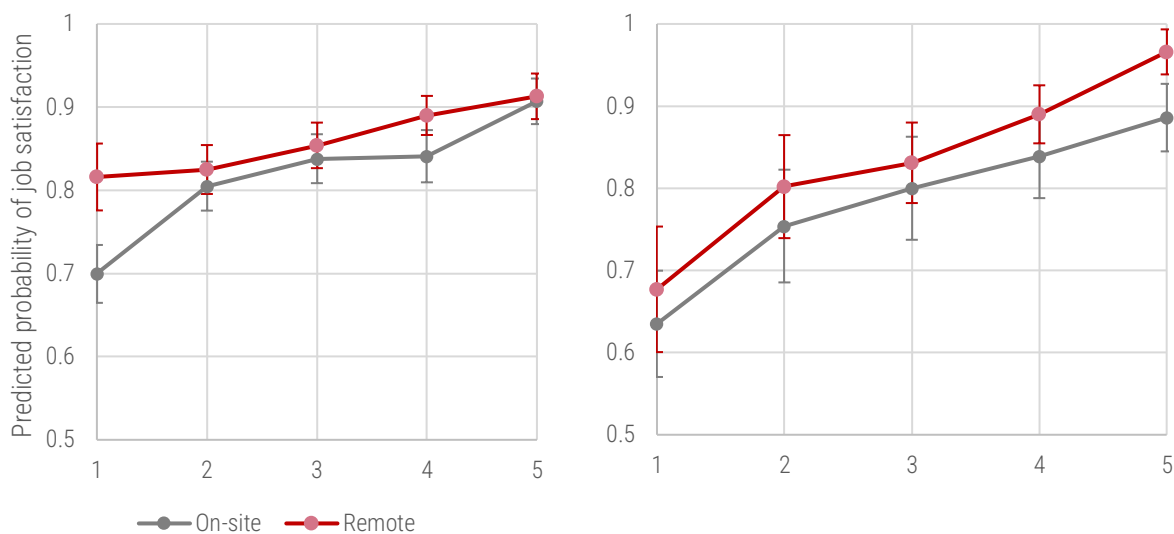
Quantiles based on the PC: Communication, Leadership and Supervision
Note: Full model estimates are presented in Table A8 in the Appendix

Finally, I explore the potential differences related to the frequency of working from home (Hypothesis 3). They turn out to be largely irrelevant for the relationship between remote work and job satisfaction across the distribution of corporate culture. The differences between working on-site and working remotely are statistically insignificant across all quantiles (Figure 4). Compared to the previous model (Figure 2), it can be concluded that even working fully remotely in the worst companies (73% chances

---

[10] In all models, I control for raising a child under 14. Results for subsamples of parents and childless individuals are available upon request.

to be satisfied) is better than not having the possibility of working from home in similar companies (68.5%).

Figure 4. Marginal Effects of Remote Work Type on Job Satisfaction across Corporate Culture Quantiles

Quantiles based on the PC: Communication, Leadership and Supervision

──●── Partially remote   ──●── Fully remote
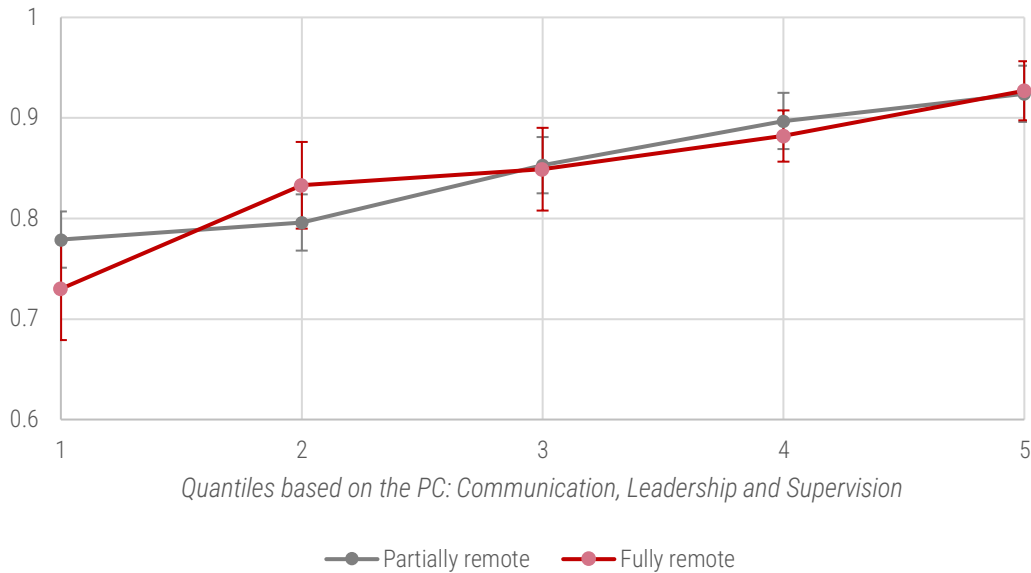
Note: Marginal effects and model estimates are presented in Table A7 *in the Appendix*

5. Summary and general discussion

The findings of this study provide support for the hypothesised positive association between working from home (WFH) and job satisfaction (hypothesis 1 - H1). Across all model specifications, employees who work remotely report significantly higher levels of job satisfaction than those who do not.

Furthermore, corporate culture emerges as a key moderator in this relationship (H2). Employees working in organisations characterised by strong communication, leadership, and supervision consistently report higher satisfaction levels (H2a). Importantly, the strength of this cultural component moderates the effect of WFH: in companies with weaker cultures, remote work appears to serve as a protective factor, mitigating the negative impact of poor organisational structures. Conversely, in companies with strong corporate cultures, the difference in satisfaction between remote and non-remote workers is minimal, suggesting that a supportive workplace environment can itself foster high satisfaction regardless of work location (H2b). However, the average effect is mainly driven by the overrepresentation of men in the sample. When the sample is split by gender, a distinct pattern emerges for women: the difference in job satisfaction between on-site and remote female workers is evident only in companies with the strongest organisational culture (H2c). This suggests that, while remote work may function as a 'protective shield' or 'coping strategy' for men in organisations with weaker cultures, women appear to benefit from remote work only when a supportive organisational culture is in place. These gendered patterns may reflect differential

sensitivities to organisational conditions and distinct mechanisms through which remote work interacts with corporate culture

Finally, the data type of remote work (H3) turns out to be insignificant, as there are no statistically significant differences with regard to job satisfaction between those working remotely occasionally and those working fully. However, even working fully remotely in the worst companies is still better than not having the possibility of working from home in similar companies.

Theoretical contributions

My results challenge the assumption that WFH might work the same regardless of the organisational context. This contributes to the telework paradox identified by (Gajendran and Harrison, 2007)—while telework can increase autonomy and job control, its effects are not universal and depend on pre-existing workplace conditions. For male workers in well-managed, high-quality firms, WFH does not significantly increase satisfaction, suggesting a ceiling effect. This aligns with research by Sewell & Taskin (2015) on control mechanisms—telework may increase autonomy, but if employees are already highly satisfied in well-structured environments, the additional flexibility does not drastically alter their experience. However, my findings provide gender nuance, suggesting that for women, the job satisfaction of remote workers is significantly higher only in companies with the best culture. This also aligns with research that looked into gender differences in the relationship between working from home and job satisfaction (Esposito et al., 2024).

The prevailing gender difference in the perception of job satisfaction, depending on the corporate culture, points to the problem of deeper gendered and structural dynamics prevalent in organisations (Acker, 1990; Kanter, 1977). In companies with a weaker culture, informal networks and visibility-based recognition mechanisms tend to dominate. In such contexts, remote work may amplify existing gender inequalities, and women, who are already underrepresented in leadership and informal power structures, may become even less visible. This might further reduce their access to career advancement, informal feedback or recognition. In contrast, in organisations with strong cultural infrastructures, formalised support systems and inclusive communication might mitigate these risks. This enables women to access the benefits of remote work on more equal terms.

The study also contributes to the literature on the management by objectives (MbO), and empirically validates that core principles of MbO - goal clarity, communication, and managerial support (Rodgers and Hunter, 1991) - remain critical in remote contexts. Previous research highlighted organisational factors that drive or hinder telework adoption (Illegems and Verbeke, 2004). My study extends this by demonstrating that organisational culture, particularly the quality of communication, supervision, and leadership effectiveness, moderates the relation between telework and job satisfaction. It also shifts the focus from structural and technological barriers to telework adoption (Illegems et al., 2001) toward cultural and managerial enablers that make telework more effective.

Practical implications
My research suggests that WFH policies should be tailored to the organisational context. Companies with weaker structures and lower baseline job satisfaction should focus on strengthening corporate

culture as a protective mechanism. One of the ways for companies to compensate for "bad culture" would be to provide workers with task-based organisation of labour while working remotely, to mitigate the effect of fuzzy obligations and lack of clear responsibilities and objectives. For high-performing firms, WFH should be viewed not as a tool for increasing satisfaction but rather as a way to provide flexibility without disrupting a well-functioning system. In those companies, women profit from WFH more than men. This underscores that remote work policies should not be one-size-fits-all solutions. When implemented without attention to organisational dynamics and gendered power structures, they risk reinforcing existing inequalities. Only by addressing underlying cultural deficits can flexibility become an empowering tool rather than a superficial fix.

The role of leadership in shaping remote work satisfaction extends beyond effective communication and supervision. Recent research highlights that identity leadership behaviours—where supervisors actively foster a shared sense of belonging—play a crucial role in mitigating the challenges of remote work, such as reduced connectedness and increased stress (Shi et al., 2024). This suggests that leadership strategies should not only focus on communication, goal-setting and supervision (captured by my study) but also on fostering a sense of collective identity within remote teams. Furthermore, research on employee involvement programs suggests that participatory work structures, such as self-monitoring teams and joint union-management programs, improve job satisfaction and reduce workplace conflict (Hodson, 2002).

Limitations and future research directions

This study is based on German data. A question arises as to whether these results are transferable to other contexts. The relationship between organisational culture, job satisfaction, and remote work can vary depending on the culture (Oleksa-Marewska and Tokar, 2023; Peters et al., 2016). Cross-national comparative research to assess whether the patterns observed here hold across diverse institutional and cultural environments would be an important step.

To build on this work, future research could pursue several directions. First, researchers could investigate how specific leadership styles interact with corporate culture to enhance job satisfaction and engagement in remote work environments. Second, future studies could look into dynamic transitions, following employees as they shift from onsite and remote work, with a focus on their evolving job satisfaction. There is also a need for more intersectional perspectives that consider how gender interacts with different factors, such as seniority or ethnicity. Finally, researchers should investigate broader organisational-level outcomes, linking job satisfaction to indicators such as productivity. In this way, they could evaluate how remote work and corporate culture jointly influence organisational effectiveness.

References

Acker, J., 1990. Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations. Gender and Society 4, 139–158.
Aczel, B., Kovacs, M., van der Lippe, T., Szaszi, B., 2021. Researchers working from home: Benefits and challenges. PLoS One 16, e0249127.
Allen, T.D., Golden, T.D., Shockley, K.M., 2015. How effective is telecommuting? Assessing the status of our scientific findings. Psychological science in the public interest 16, 40–68.

Atobishi, T., Nosratabadi, S., 2023. Drivers and Constraints of Employee Satisfaction with Remote Work: An Empirical Analysis. Organizacija 56, 93–105.

Bakker, A.B., Demerouti, E., 2017. Job demands–resources theory: Taking stock and looking forward. Journal of Occupational Health Psychology 22, 273–285.

Belanger, F., Watson-Manheim, M., Swan Phd Pmp Itil Csm, B., 2012. A multi-level socio-technical systems telecommuting framework. Behaviour & Information Technology - Behaviour & IT 32, 1–23.

Bentley, T., Teo, S.T.T., McLeod, L., Tan, F., Bosua, R., Gloet, M., 2016. The role of organisational support in teleworker wellbeing: A socio-technical systems approach. Applied Ergonomics 52, 207–215.

Charalampous, M., Grant, C.A., Tramontano, C., Michailidis, E., 2019. Systematically reviewing remote e-workers' well-being at work: a multidimensional approach. European Journal of Work and Organizational Psychology 28, 51–73.

Elama, A., Garg, P., 2024. Technostress and Psychological Flexibility: The Mediating Role of Resilience at Work in the Context of Remote Working IT Employees. In: Bilgin, M.H., Danış, H., Demir, E., Yazgan, E. (Eds.), Eurasian Business and Economics Perspectives. Springer Nature Switzerland, Cham, pp. 77–95.

Esposito, P., Mendolia, S., Scicchitano, S., Tealdi, C., 2024. Working from Home and Job Satisfaction: The Role of Gender and Personality Traits.

Frederiksen, A., 2017. Job satisfaction and employee turnover: A firm-level perspective. German Journal of Human Resource Management / Zeitschrift für Personalforschung 31, 132–161.

Gajendran, R.S., Harrison, D.A., 2007. The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. Journal of Applied Psychology 92, 1524–1541.

Golden, T., Veiga, J., 2005. The Impact of Extent of Telecommuting on Job Satisfaction: Resolving Inconsistent Findings. Journal of Management - J MANAGE 31.

Golden, T.D., Gajendran, R.S., 2019. Unpacking the Role of a Telecommuter's Job in Their Performance: Examining Job Complexity, Problem Solving, Interdependence, and Social Support. J Bus Psychol 34, 55–69.

Hackney, A., Yung, M., Somasundram, K.G., Nowrouzi-Kia, B., Oakman, J., Yazdani, A., 2022. Working in the digital economy: A systematic review of the impact of work from home arrangements on personal and organizational performance and productivity. PLOS ONE 17, e0274728.

Harter, J.K., Schmidt, F.L., Hayes, T.L., 2002. Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. Journal of Applied Psychology 87, 268–279.

Hartig, T., Kylin, C., Johansson, G., 2007. The telework tradeoff : Stress mitigation vs. Constrained restoration. Applied Psychology 56, 231–253.

Haylock, M., Kampkötter, P., 2019. Dataset: The Linked Personnel Panel (LPP). Data in Brief 27, 104824.

Hodson, R., 2002. Worker Participation and Teams: New Evidence from Analyzing Organizational Ethnographies. Economic and Industrial Democracy 23, 491–528.

Huws, U., 1993. Teleworking in Britain : a report to the Employment Department, Research series / Employment Department Group. London.

Illegems, V., Verbeke, A., 2004. Telework: What Does it Mean for Management? Long Range Planning 37, 319–334.

Imrul, Md.A., Rafique, M., Amin, M., 2022. Impact of Work from Home on Employee Performance in Context of Bangladesh. European Journal of Business Management and Research 14, 13–24.

Jamaludin, N., Kamal, S., 2023. The Relationship between Remote Work and Job Satisfaction: The Mediating Role of Perceived Autonomy. Information Management and Business Review 15, 10–22.

Jolliffe, I.T. (Ed.), 2002. Principal Components in Regression Analysis. In: Principal Component Analysis. Springer, New York, NY, pp. 167–198.

Kalleberg, A.L., 1977. Work Values and Job Rewards: A Theory of Job Satisfaction. American Sociological Review 42, 124.

Kanter, R.M., 1977. Men And Women Of The Corporation. Basic Books.

Konradt, U., Hertel, G., Schmook, R., 2003. Quality of management by objectives, task-related stressors, and non-task-related stressors as predictors of stress and job satisfaction among teleworkers. European Journal of Work and Organizational Psychology 12, 61–79.

Mann, S., Holdsworth, L., 2003. The Psychological Impact of Teleworking: Stress, Emotions and Health. New Technology Work and Employment 18, 196–211.

Manoochehri, G., Pinkerton, T., 2003. Managing telecommuters : opportunities and challenges. American business review, American business review. - West Haven, Conn., ISSN 0743-2348, ZDB-ID 1115252-7. - Vol. 21.2003, 1, p. 9-16 21.

McCrae, R., Costa, P., 1987. Validation of the Five-Factor Model of Personality Across Instruments and Observers. Journal of personality and social psychology 52, 81–90.

Nowrouzi-Kia, B., Haritos, A.M., Long, B.-Z.S., Atikian, C., Fiorini, L.A., Gohar, B., Howe, A., Li, Y., Bani-Fatemi, A., 2024. Remote work transition amidst COVID-19: Impacts on presenteeism, absenteeism, and worker well-being—A scoping review. PLOS ONE 19, e0307087.

Oleksa-Marewska, K., Tokar, J., 2023. Organizational culture and job satisfaction of employees working remotely: a cross-cultural analysis. SPSUTOM 2023, 347–360.

O'Neill, T.A., Hambley, L.A., Greidanus, N.S., MacDonnell, R., Kline, T.J.B., 2009. Predicting teleworker success: an exploration of personality, motivational, situational, and job characteristics. New Technology, Work and Employment 24, 144–162.

Orešković, T., Milošević, M., Košir, B.K., Horvat, D., Glavaš, T., Sadarić, A., Knoop, C.-I., Orešković, S., 2023. Associations of working from home with job satisfaction, work-life balance, and working-model preferences. Front. Psychol. 14.

Peters, P., Ligthart, P.E.M., Bardoel, A., Poutsma, E., 2016. 'Fit' for telework'? Cross-cultural variance and task-control explanations in organizations' formal telework practices. The International Journal of Human Resource Management 27, 2582–2603.

Rodgers, R., Hunter, J.E., 1991. Impact of management by objectives on organizational productivity. Journal of Applied Psychology 76, 322–336.

Sardeshmukh, S.R., Sharma, D., Golden, T.D., 2012. Impact of telework on exhaustion and job engagement: a job demands and job resources model. New Technology, Work and Employment 27, 193–207.

Shi, J., Feenstra, S., van Vugt, M., 2024. Connecting work teams in a remote workplace: an identity leadership perspective. European Journal of Work and Organizational Psychology 33, 643–657.

Smirnych, L., 2023. Working from home and job satisfaction: evidence from Russia. International Journal of Manpower 45.

Stephens, G.K., Szajna, B., 1998. Perceptions and Expectations: Why People Choose a Telecommuting Work Style. International Journal of Electronic Commerce 3, 70–85.

Van Zoonen, W., Sivunen, A.E., 2022. The impact of remote work and mediated communication frequency on isolation and psychological distress. European Journal of Work and Organizational Psychology 31, 610–621.

Wang, M.-H., Chen, K.-T., Wang, S.-Y., Lei, C.-L., 2013. Understanding Potential MicrotaskWorkers for Paid Crowdsourcing. HCOMP 1, 76–77.

Wheatley, D., 2012. Good to Be Home? Time-Use and Satisfaction Levels Among Home-Based Teleworkers. New Technology 27.

Whittle, A., Mueller, F., 2009. 'I could be dead for two weeks and my boss would never know': telework and the politics of representation. New Technology, Work and Employment 24, 131–143.

Appendix

Table A1 Mean Scores for Corporate Culture Questions by PCA Score Quantiles

	A	B	C	D	E	G	H	J	K	L	M	N
1 q	3.04	2.69	3.11	2.80	3.12	3.95	2.89	2.88	3.22	2.52	4.19	3.24
2 q	3.49	3.29	3.58	3.23	3.55	4.20	3.41	3.73	3.55	3.08	4.23	3.39
3 q	3.66	3.54	3.67	3.30	3.66	4.30	3.51	4.00	3.65	3.36	4.26	3.49
4 q	3.79	3.68	3.85	3.46	3.81	4.35	3.63	4.04	3.76	3.52	4.32	3.62
5 q	4.11	4.00	4.19	3.87	4.11	4.55	4.00	4.10	4.10	3.82	4.53	4.00

Table A2 Correlation of corporate culture questions with job satisfaction

	Job satisfaction	A	B	C	D	E	G	H	J	K	L	M	N
Job satisfaction	1												
A: Good understanding	0.3255*	1											
B: Long-term plans	0.3213*	0.6116*	1										
C: Confidence	0.4091*	0.4438*	0.4078*	1									
D: Good guidance	0.4081*	0.4455*	0.4489*	0.5861*	1								
E: Understanding	0.3985*	0.3607*	0.3431*	0.6497*	0.5788*	1							
G: No discrimination	0.2177*	0.2605*	0.2612*	0.2896*	0.2844*	0.2644*	1						
H: Clear communication	0.3380*	0.4798*	0.4848*	0.5241*	0.5845*	0.4730*	0.2477*	1					
J: Charitable and non-profit projects	0.2643*	0.2592*	0.3023*	0.2866*	0.2623*	0.2896*	0.1917*	0.2496*	1				
K: Creating meaning through work	0.4348*	0.3455*	0.3114*	0.3741*	0.3811*	0.3608*	0.2032*	0.3230*	0.2086*	1			
L: Employer goals and society/environment	0.3064*	0.3247*	0.3862*	0.3691*	0.3863*	0.3680*	0.2395*	0.3245*	0.4508*	0.3265*	1		
M: An important contribution to business operation	0.2273*	0.2854*	0.2537*	0.2504*	0.2292*	0.1954*	0.1766*	0.2630*	0.1245*	0.3463*	0.1935*	1	
N: meaningful contribution to society	0.2323*	0.2691*	0.2494*	0.2388*	0.2716*	0.1960*	0.1322*	0.2663*	0.1417*	0.4156*	0.3264*	0.3980*	1

Table A3 Correlation of Principal Components with job satisfaction

	Job satisfaction	PC1 – Communication, Leadership & Supervision	PC2 - Personal Contribution & Work Meaningfulness	PC3 - Ethical Responsibility and Societal Impact
Job satisfaction	1			
PC1 – Communication, Leadership & Supervision	0.5225*	1		
PC2 - Personal Contribution & Work Meaningfulness	0.0466*	0.0441*	1	
PC3 - Ethical Responsibility and Societal Impact	-0.0334*	-0.0260*	-0.0178	1

Table A4. Mean differences between satisfied and non-satisfied respondents

	Satisfied	Non-satisfied	Mean difference
Variable	Mean	Mean	
Work from home	0.460	0.331	0.129
	(0.498)	(0.471)	
Wellbeing index	61.140	46.586	14.554
	(19.574)	(21.627)	
Culture Index	45.275	37.217	8.058
	(6.810)	(7.526)	
Men	0.744	0.730	0.014
	(0.436)	(0.444)	
Migrant	0.026	0.037	-0.011

	(0.159)	(0.189)	
Children	0.277	0.265	0.012
	(0.448)	(0.441)	
Tertiary education	0.327	0.271	0.056
	(0.469)	(0.444)	
Age	45.226	45.473	-0.247
	(10.905)	(10.625)	
Partner in the household	0.917	0.915	0.001
	(0.277)	(0.279)	
Permanent employment	0.972	0.964	0.008
	(0.166)	(0.186)	
Working part-time	0.129	0.156	-0.027
	(0.335)	(0.363)	
Working over 48 hours	0.101	0.097	0.004
	(0.302)	(0.296)	
Self efficacy	2.794	2.675	0.119
	(0.567)	(0.698)	
Conscientiousness	2.738	2.632	0.106
	(0.549)	(0.666)	
Agreeableness	2.427	2.290	0.137
	(0.752)	(0.838)	
Neuroticism	0.772	0.947	-0.175
	(0.935)	(0.970)	
Openness	2.039	1.961	0.078
	(0.924)	(0.984)	
Extraversion	1.799	1.620	0.179
	(1.077)	(1.081)	

Note: weighted results

Table A5. Mean differences between employees working and not working from home

Variable	Working from home Mean	Not working from home Mean	Mean difference
Job satisfaction	0.859	0.780	0.079
	(0.348)	(0.415)	
Wellbeing index	59.048	57.959	1.089
	(19.356)	(21.770)	
Culture Index	44.925	42.890	2.035
	(6.852)	(8.058)	
Men	0.719	0.759	-0.040
	(0.450)	(0.428)	
Migrant	0.020	0.034	-0.015
	(0.139)	(0.182)	
Children	0.335	0.228	0.107
	(0.472)	(0.420)	
Tertiary education	0.564	0.125	0.439
	(0.496)	(0.331)	
Age	44.544	45.835	-1.291
	(10.427)	(11.140)	
Partner in household	0.912	0.920	-0.008
	(0.283)	(0.272)	
Permanent employment	0.967	0.973	-0.006
	(0.178)	(0.162)	
Working part-time	0.146	0.125	0.021
	(0.353)	(0.331)	
Working over 48 hours	0.152	0.061	0.091
	(0.359)	(0.239)	
Self efficacy	2.797	2.753	0.044
	(0.540)	(0.635)	
Conscientiousness	2.681	2.747	-0.066
	(0.612)	(0.540)	
Agreeableness	2.401	2.402	-0.001
	(0.767)	(0.773)	
Neuroticism	0.779	0.823	-0.044
	(0.941)	(0.946)	
Openness	2.122	1.950	0.172
	(0.872)	(0.976)	
Extraversion	1.833	1.714	0.119

| | (1.091) | (1.069) | |

Note: weighted results

Table A6 The correlates of job satisfaction (marginal effects from logit models).

	A	B	C	D
Working from home	0.052***	0.036***	0.035***	
	(0.010)	(0.010)	(0.010)	
Male	0.009	0.016	0.016	
	(0.012)	(0.011)	(0.011)	
Migrant	-0.057*	-0.061**	-0.058**	
	(0.024)	(0.023)	(0.023)	
Higher education	-0.015	-0.011	-0.007	
	(0.010)	(0.009)	(0.009)	
age 20-34	-0.013	0.007	0.007	
ref. age 35-54	(0.014)	(0.012)	(0.012)	
age 55-70	0.014	-0.005	-0.006	
ref. age 35-54	(0.009)	(0.010)	(0.010)	
Partner in the household	0.029	0.019	0.017	
	(0.016)	(0.015)	(0.015)	
Permanent employment	0.029	0.006	0.006	
	(0.025)	(0.024)	(0.024)	
Children under 14	-0.007	-0.002	-0.004	
	(0.011)	(0.010)	(0.010)	
Part-time work	-0.016	0.002	0.002	
	(0.015)	(0.013)	(0.013)	
Working 48 hours/week	-0.005	-0.021	-0.026*	
	(0.014)	(0.013)	(0.013)	
Income (log)	0.015*	0.012	0.009	
	(0.007)	(0.007)	(0.007)	
Sales/marketing	0.005	0.016	0.012	
ref. production	(0.015)	(0.014)	(0.014)	
Cross-sect/admin	0.023	0.027*	0.027*	
ref. production	(0.012)	(0.012)	(0.012)	
Services	0.022*	0.016	0.013	
ref. production	(0.011)	(0.010)	(0.010)	
over 250 employees.	0.023	0.029*	0.027*	
ref. < 250 employees	(0.012)	(0.011)	(0.011)	
2020	-0.015	-0.010	-0.010	
ref. 2018	(0.009)	(0.008)	(0.008)	
PC: Communication, Leadership & Supervision		0.129***	0.122***	

		(0.004)	(0.004)	
PC: Personal Contribution & Work Meaningfulness		0.008	0.006	
		(0.004)	(0.004)	
PC: Ethical Responsibility and Societal Impact		-0.013**	-0.012**	
		(0.004)	(0.004)	
conscientiousness			-0.001	
			(0.007)	
agreeableness			0.010*	
			(0.005)	
neuroticism			-0.034***	
			(0,004)	
openness			0.003	
			(0.005)	
extraversion			0.013**	
			(0.004)	
Self-efficacy			0.003	
			(0.007)	
Only on-site work # Communication, Leadership & Supervision				0.126***
				(0.006)
Remote work # Communication, Leadership & Supervision				0.119***
				(0.006)
Only on-site work # Personal Contribution & Work Meaningfulness				0.004
				(0.006)
Remote work # Personal Contribution & Work Meaningfulness				0.009
				(0.006)
Only on-site work # Ethical Responsibility and Societal Impact				-0.015*
				(0.006)
Remote work # Ethical Responsibility and Societal Impact				-0.009
				(0.006)
N	7906	7906	7906	7906

*Note: Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Column C shows the marginal effect of the three components on job satisfaction for those working from home and those who do not.*

Table A7. The correlates of job satisfaction (marginal effects from logit models with control variables for quantile-based grouping).

Job satisfaction	A	B	C	D	E
Working from home	0.052***	0.041***	0.041***		
	(0.010)	(0.010)	(0.010)		
Male	0.010	0.010	0.008		
	(0.012)	(0.012)	(0.012)		

27

Migrant	-0.057*	-0.052*	-0.049*		
	(0.024)	(0.024)	(0.024)		
Higher education	-0.015	-0.020*	-0.014		
	(0.010)	(0.010)	(0.010)		
age 20-34	-0.013	-0.008	-0.007		
ref. age 35-54	(0.014)	(0.014)	(0.014)		
age 55-70	0.012	0.007	0.005		
ref. age 35-54	(0.010)	(0.010)	(0.010)		
Partner in the household	0.030	0.027	0.023		
	(0.016)	(0.016)	(0.016)		
Children under 14	-0.007	-0.005	-0.007		
	(0.011)	(0.011)	(0.010)		
Permanent employment	0.029	0.034	0.032		
	(0.025)	(0.024)	(0.025)		
Part time work	-0.016	-0.020	-0.019		
	(0.015)	(0.014)	(0.014)		
Working > 48 hours/week	-0.005	-0.005	-0.014		
	(0.014)	(0.014)	(0.014)		
Income (log)	0.015*	0.014*	0.010		
	(0.007)	(0.007)	(0.007)		
Sales/marketing	0.005	-0.001	-0.007		
ref. production	(0.015)	(0.015)	(0.015)		
Cross-sect/admin	0.023	0.017	0.015		
ref. production	(0.012)	(0.012)	(0.012)		
Services	0.022*	0.010	0.007		
ref. production	(0.011)	(0.011)	(0.011)		
over 250 empl.	0.023	0.013	0.012		
ref. < 250 empl.	(0.012)	(0.012)	(0.012)		
2020	-0.015	-0.016	-0.016		
ref. 2018	(0.009)	(0.009)	(0.009)		
1st quantile (PC: Communication)		-0.123***	-0.108***		
ref. 3rd quantile		(0.015)	(0.015)		
2nd quantile (PC: Communication)		-0.032*	-0.031*		
ref. 3rd quantile		(0.013)	(0.013)		
4th quantile (PC: Communication)		0.031*	0.028*		
ref. 3rd quantile		(0.012)	(0.012)		
5th quantile (PC: Communication)		0.083***	0.079***		
		(0.012)	(0.012)		
PC: Personal Contribution & Work Meaningfulness		0.014**	0.011*		
		(0.005)	(0.005)		
PC: Ethical Responsibility and Societal Impact		-0.031***	-0.029***		
		(0.005)	(0.005)		
conscientiousness			0.010		
			(0.008)		
agreeableness			0.024***		
			(0.005)		
neuroticism			-0.043***		
			(0.004)		
openness			0.004		
			(0.005)		
extraversion			0.015***		
			(0.004)		
self-efficacy			0.006		
			(0.007)		
Only on-site work # 1st quantile				0.685***	
(PC: Communication)				(0.015)	
Only on-site work # 2nd quantile				0.794***	
(PC: Communication)				(0.014)	
Only on-site work # 3rd quantile				0.827***	
(PC: Communication)				(0.014)	
Only on-site work # 4th quantile				0.841***	
(PC: Communication)				(0.014)	
Only on-site work # 5th quantile				0.903***	
(PC: Communication)				(0.011)	
Remote work # 1st quantile				0.775***	
(PC: Communication)				(0.019)	
Remote work # 2nd quantile				0.819***	
(PC: Communication)				(0.013)	

Remote work # 3rd quantile				0.847***	
(PC: Communication)				(0.012)	
Remote work # 4th quantile				0.889***	
(PC: Communication)				(0.010)	
Remote work # 5th quantile				0.929***	
(PC: Communication)				(0.011)	
partially remotely # 1st quantile					0.779***
(PC: Communication)					(0.026)
partially remotely # 2nd quantile					0.796***
(PC: Communication)					(0.022)
partially remotely # 3rd quantile					0.853***
(PC: Communication)					(0.021)
partially remotely # 4th quantile					0.897***
(PC: Communication)					(0.013)
partially remotely # 5th quantile					0.924***
(PC: Communication)					(0.015)
fully remotely # 1st quantile					0.730***
(PC: Communication)					(0.045)
fully remotely # 2nd quantile					0.833***
(PC: Communication)					(0.035)
fully remotely # 3rd quantile					0.849***
(PC: Communication)					(0.032)
fully remotely # 4th quantile					0.882***
(PC: Communication)					(0.019)
fully remotely # 5th quantile					0.927***
(PC: Communication)					(0.026)
N	7906	7906	7906	7906	2473

Note: Column D shows the marginal effects (predicted possibilities) of corporate culture on job satisfaction for those working from home and those who do not, based on the quantile grouping. Robust standard errors are in parentheses. Column E shows predicted possibilities of job satisfaction for groups based on the type of remote work and the quantile based grouping of the corporate culture. The question on fully remote work was asked only in the 2020 wave
*** p<0.01, ** p<0.05, * p<0.1.

Table A8 The marginal effects of logit models estimated for men and women separately

	Men		Women	
Job satisfaction	A	B	A	B
Working from home	0.041***		0.051*	
	(0.012)		(0.021)	
Migrant	-0.049		-0.031	
	(0.027)		(0.048)	
Higher education	-0.013		-0.005	
	(0.011)		(0.021)	
age 20-34	0.007		-0.039	
ref. age 35-54	(0.016)		(0.027)	
age 55-70	0.001		0.019	
ref. age 35-54	(0.011)		(0.020)	
Partner in the household	0.011		0.043	
	(0.019)		(0.029)	
Children under 14	-0.007		-0.011	
	(0.012)		(0.023)	
Permanent employment	-0.004		0.119**	
	(0.030)		(0.045)	
Part time work	-0.058*		-0.017	
	(0.023)		(0.023)	
Working > 48 hours/week	-0.008		-0.076*	
	(0.015)		(0.036)	
Income (log)	0.011		-0.008	
	(0.006)		(0.027)	
Sales/marketing	-0.005		-0.016	
ref. production	(0.017)		(0.030)	
Cross-sect/admin	0.015		0.008	
ref. production	(0.014)		(0.025)	
Services	0.008		-0.006	
ref. production	(0.012)		(0.025)	
over 250 empl.	0.013		0.010	
ref. < 250 empl.	(0.014)		(0.022)	
2020	-0.013		-0.024	

ref. 2018	(0.010)		(0.018)	
1st quantile (PC: Communication)	-0.090***		-0.160***	
ref. 3rd quantile	(0.017)		(0.033)	
2nd quantile (PC: Communication)	-0.031*		-0.037	
ref. 3rd quantile	(0.014)		(0.030)	
4th quantile (PC: Communication)	0.019		0.049	
ref. 3rd quantile	(0.014)		(0.025)	
5th quantile (PC: Communication)	0.064***		0.111***	
	(0.014)		(0.023)	
PC: Personal Contribution & Work Meaningfulness	0.014*		0.003	
	(0.006)		(0.009)	
PC: Ethical Responsibility and Societal Impact	-0.021***		-0.052***	
	(0.006)		(0.009)	
conscientiousness	0.014		-0.022	
	(0.008)		(0.021)	
agreeableness	0.026***		0.013	
	(0.006)		(0.011)	
neuroticism	-0.051***		-0.022*	
	(0.005)		(0.009)	
openness	0.006		0.003	
	(0.005)		(0.010)	
extraversion	0.017***		0.007	
	(0.005)		(0.009)	
self-efficacy	0.008		0.008	
	(0.008)		(0.014)	
Only on-site work # 1st quantile		0.700***		0.635***
(PC: Communication)		(0.018)		(0.033)
Only on-site work # 2nd quantile		0.805***		0.754***
(PC: Communication)		(0.015)		(0.035)
Only on-site work # 3rd quantile		0.838***		0.800***
(PC: Communication)		(0.015)		(0.032)
Only on-site work # 4th quantile		0.841***		0.839***
(PC: Communication)		(0.016)		(0.026)
Only on-site work # 5th quantile		0.907***		0.886***
(PC: Communication)		(0.014)		(0.021)
Remote work # 1st quantile		0.816***		0.677***
(PC: Communication)		(0.021)		(0.039)
Remote work # 2nd quantile		0.825***		0.802***
(PC: Communication)		(0.015)		(0.032)
Remote work # 3rd quantile		0.854***		0.831***
(PC: Communication)		(0.014)		(0.025)
Remote work # 4th quantile		0.890***		0.890***
(PC: Communication)		(0.012)		(0.018)
Remote work # 5th quantile		0.913***		0.966***
(PC: Communication)		(0.014)		(0.014)
N	5865	5865	2041	2041