University of Warsaw
Faculty of Economic Sciences

# Work from Home and Careers in the Post-Covid Context: Evidence from a Discrete Choice Experiment

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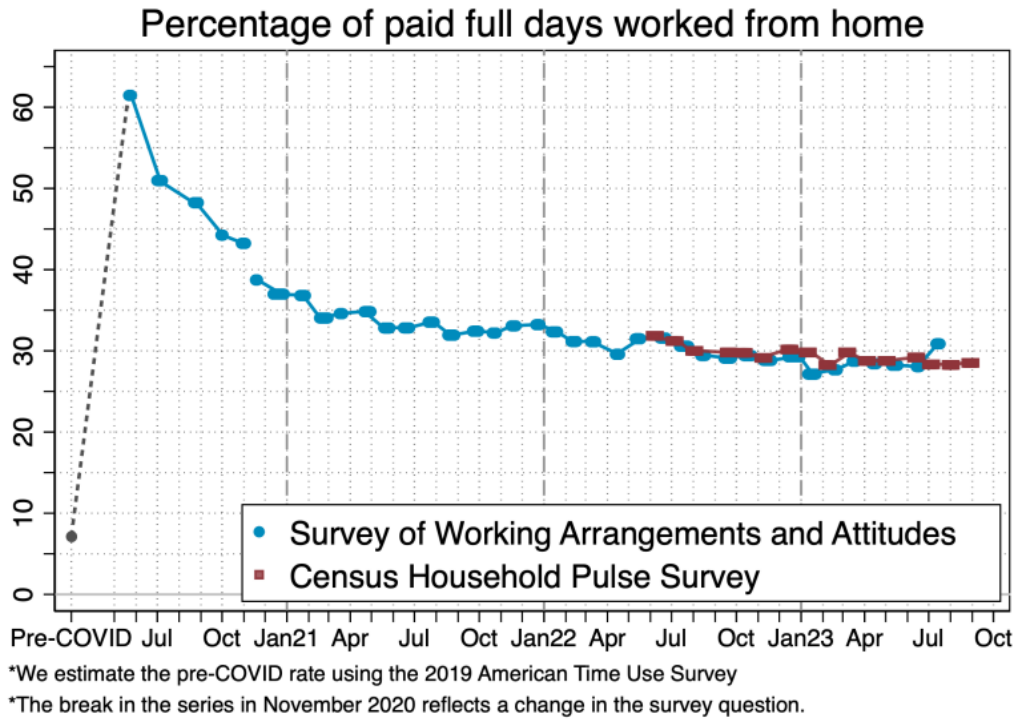
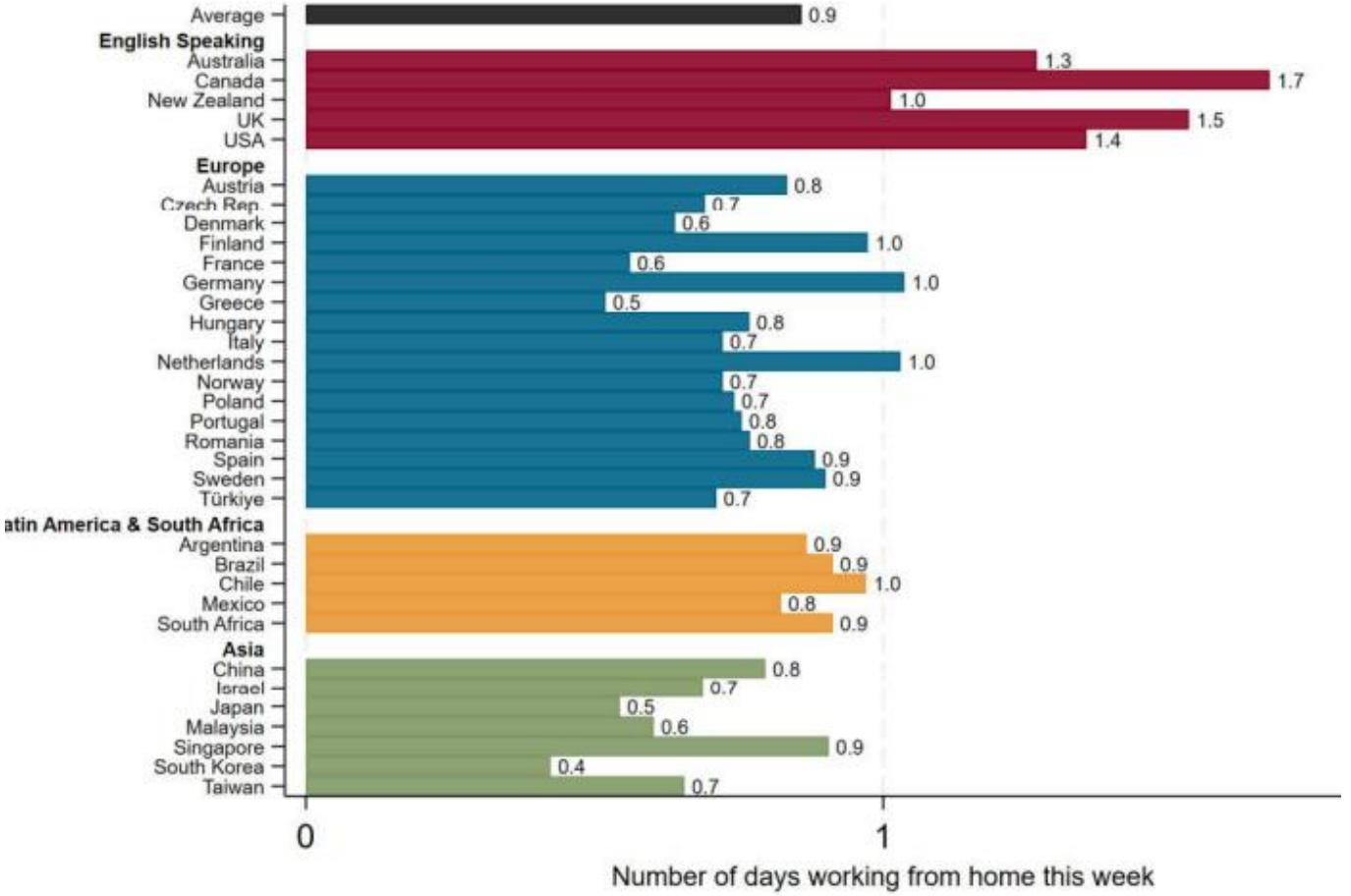



## Paid Full Days Worked from Home per week (April-May 2023)




Source: Aksoy et al. Working from Home Around the Globe: 2023 Report

# PAST EVIDENCE (pre-Covid)

## OBSERVATIONAL STUDIES

- Weeden (2005): **+** effect on wages
- Leslie et al. (2012): **+** effect but only if the request to WFH not driven by personal motives
- Arntz et al. (2022): **+** effect on hourly wages **for fathers**, unless mothers change employers
- Golden and Eddleston (2020): no effect on promotions but **lower salary growth**

## EXPERIMENTAL STUDIES

- Bloom (2015): **-** effects on promotion despite increases in productivity
- Fernandez-Lozano et al. (2020): **-** effects on promotion
- Munsch (2016): **-** effects on promotion but their magnitude **lower** for workers who request WFH for **childcare reasons** (espescially fathers)

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# OUR CONTRIBUTIONS

**Effects of WFH on workers' career opportunities** (promotion, salary increase) in the UK

- Late-/Post-covid context (2nd half of 2022)
- Experimental design: self-designed discrete choice experiment
- Mediating mechanisms (WHY different career opportunities?)
- Gender and parenthood perspective
- Company context

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# MEDIATING MECHANISMS

## WORK PERFORMANCE

POSITIVE:

- fewer workplace distructions
- longer / more intense work
- less commuting
- larger effort in exchange for flexibility

NEGATIVE:

- lack of consistent communication with colleagues, knowledge exchange or interpersonal networking
- family-to-work spillover

## WORK COMMITMENT

NEGATIVE:

- Low work commitment
- WFH for individual-serving motives

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# GENDER & PARENTHOOD

## WORK PERFORMANCE

POSITIVE:

- fewer workplace distructions
- **longer / more intense work**
- less commuting
- **larger effort in exchange for flexibility**

**FATHERS**
(fatherhood premium)

**MOTHERS**

NEGATIVE:

- lack of consistent communication with colleagues, knowledge exchange or interpersonal networking
- **family-to-work spillover**

**MOTHERS**

## WORK COMMITMENT

NEGATIVE:

- Low work commitment
- WFH for individual-serving motives

**MOTHERS**
**FATHERS**

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# COMPANY CONTEXT

## WfH INCIDENCE

- WfH less stigmatizing, not linked to lower work commitment
- Employers more aware of what it means for workers' performance
- Integration of remote workers into the company

## IDEAL WORKER NORMS

- High availability to the employer / clients
- 'Face time' as a marker of high work commitment
- Few commitments outside of paid work

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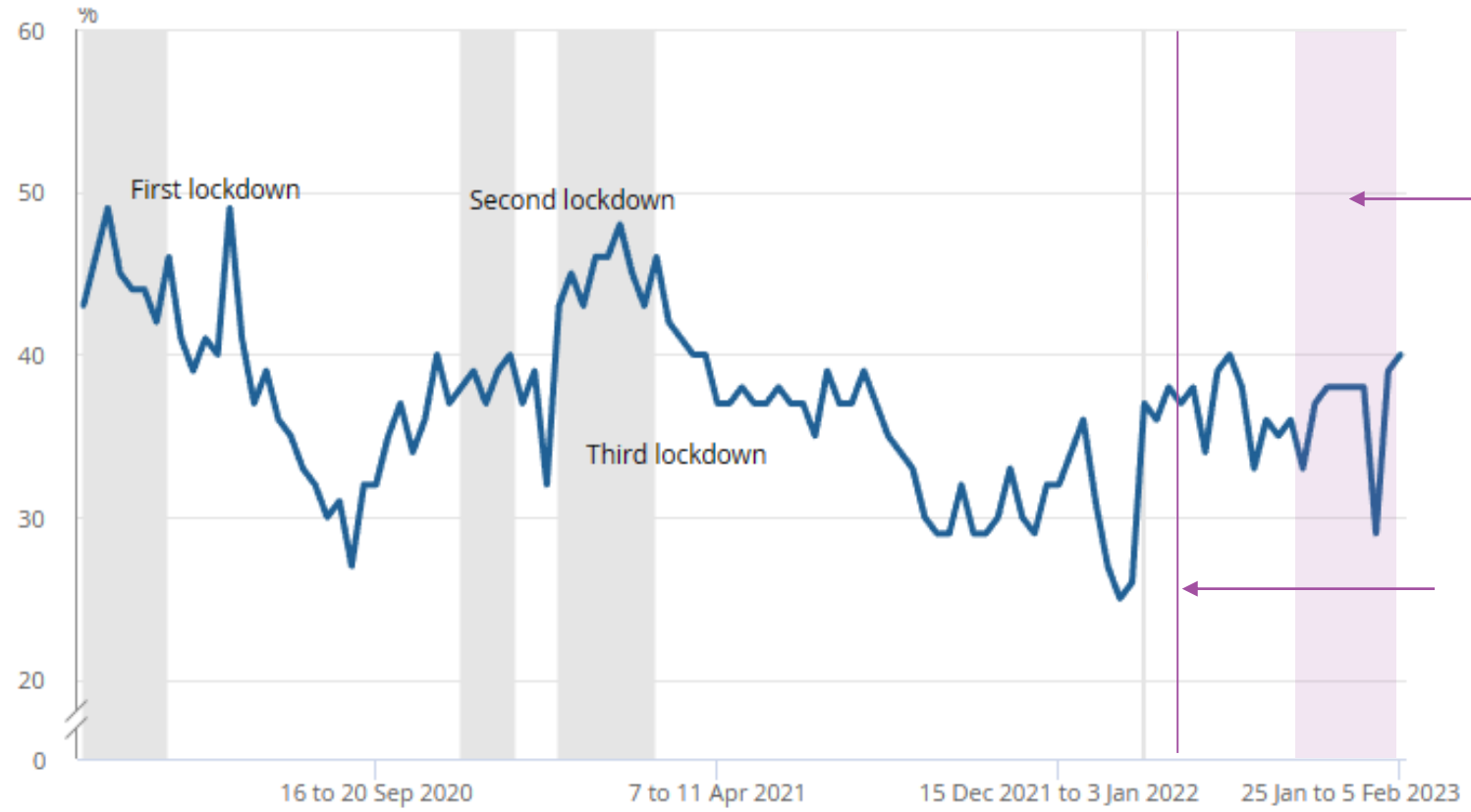
# WFH IN THE UK

**Proportion of working adults in Great Britain, March 2020 to February 2023**




Fieldwork

Government guidelines to work from home were lifted

**BEFORE THE PANDEMIC:**
5.7%

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# DATA

Online **discrete choice experiment** (July and December 2022)

- an online opt-in panel
- each respondent was presented with three pairs of workers' profiles and had to **choose one** of them for promotion and salary increase

**Managers** (N=937) from the UK who:

- Supervise at least 5 employees
- in companies with at least 10 employees
- in occupations in which at least 50% of jobs  can be done at home (Dingel & Neiman, 2020)
- Quota sample, representative by manager's gender, firm size and firm location

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# AN EXAMPLE OF THE PAIR OF PROFILES

Please, familiarize yourself with the two profiles of workers and answer the questions below.

| | Worker A | Worker B |
|---|---|---|
| **Work experience in the sector** (in full-time equivalents) | 13 years | 8 years |
| **Family situation** (number of children of age below 14 years old) | 3 children | 3 children |
| **Working mode** (full time, 5 days per week) | 2 days at home; 3 days at office | 5 days at office |
| **Sex** | male | male |
| **Skills ranking** (1 very weak, 5 very strong) | social 2, analytical 5 | social 3, analytical 2 |
| **Age** | 40 years old | 38 years old |
| **Performance rank** (below satisfactory, satisfactory, exceptional) | not provided | not provided |

**Full-time teleworker:** 5 days at home
**Hybrid:** 2 days at home, 3 days at office
**Onsite:** 5 days at office

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**Half of the pairs of profiles has no info on work performance**

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1. Which employee would you give promotion to?
2. Which employee would you give salary increase to?
3. Which employee do you consider to be more committed to work?

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# OTHER QUESTIONS

- **A set of questions about the manager:** gender, parenthood status, work experience, gender role attitudes

- **A set of questions about the organisation**: sector of the economy, % of women, availability of flexible work options, prevalaence of ideal worker norms

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# DATA ANALYSIS (1)

## Logistic regression

- **Outcome variables:** promotion, salary increase
- **Explanatory variable:** mode of work
- **Basic controls:** workers' sex, age, work experience, skills (social and analytical), parenthood status

**SAMPLE WITH UNKNOWN WORK PERFORMANCE**
('real life' situation)

VS

**SAMPLE WITH KNOWN WORK PERFORMANCE**

WORK PERFORMANCE MECHANISM

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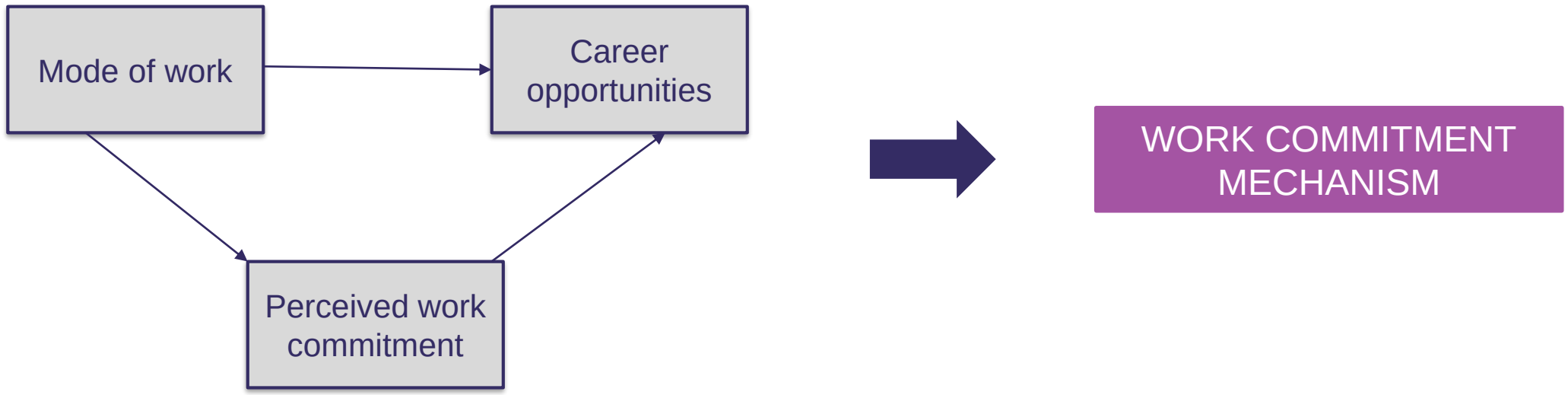
# DATA ANALYSIS (2)

**SAMPLE WITH KNOWN PERFORMANCE:**

Mediation analysis

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# DATA ANALYSIS (3)

## SAMPLE WITH UNKNOWN WORK PERFORMANCE

### Logistic regression

- **Outcome variables:** promotion, salary increase
- **Explanatory variable:** mode of work **# company context**
- **Basic controls:** workers' sex, age, work experience, skills (social and analytical), parenthood status

## WfH INCIDENCE

**How many of the workers under your supervision work from home at least one day a week?**

1. none
2. less than 20%
3. 20%-39%
4. 40%-59%
5. 60%-79%
6. more than 80%

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# DATA ANALYSIS (3)

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- **Basic controls:** workers' sex, age, work experience, skills (social and analytical), parenthood status

## IDEAL WORKER NORMS

**Highly successful workers in your company are those who…**

1. Work long hours
2. Are available  to work overtime hours whenever needed
3. Frequently bring work home to finish uncompleted tasks
4. Are available beyond working hours (e.g. quickly replying to email, phone calls….)
5. Put work above personal life
6. Often do not take vacations
7. Do not take time off for family reasons if work needs to be done
8. Do not call in sick
9. Often work in the office beyond standard work hours

*1 – definitely not …… 4 – definitely yes*

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# General findings

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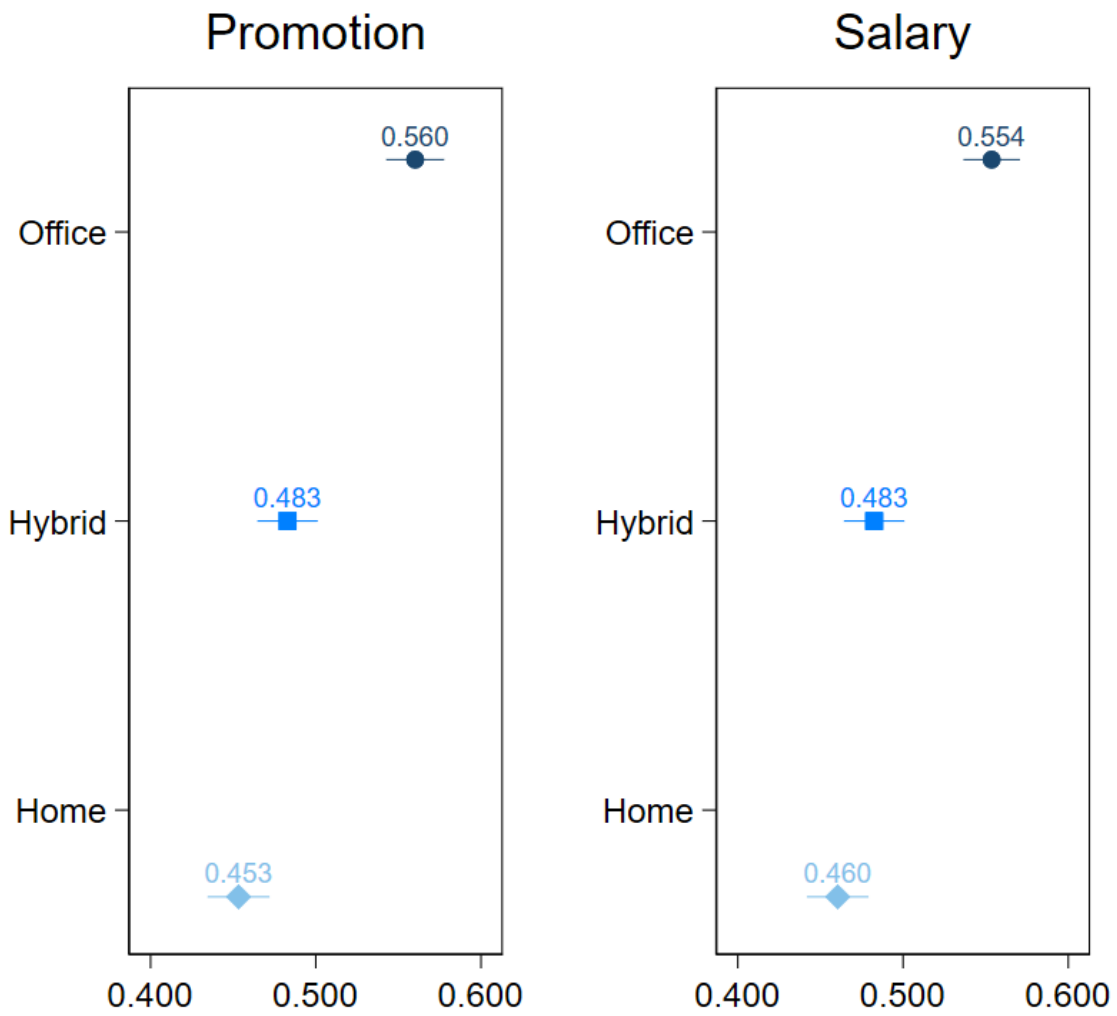
# RESULTS: sample unknown performance

Predicted probabilities with 83% CI



# Mediating mechanisms

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# RESULTS: Mediating effect of work performance

Marginal effects (t-stat in parantheses)

**PERFORMANCE UNKNOWN**

| | promotion | salary increase |
|---|---|---|
| **A. Models on data records with unknown work performance (Models 1a-c)** | | |
| **Mode of work** (ref: office) | | |
| Hybrid | -0.077*** | -0.071*** |
| | (-3.55) | (-3.28) |
| Home | -0.107*** | -0.093*** |
| | (-4.97) | (-4.34) |
| Observations | | 2,804 |

† 0.1 * 0.05 ** 0.01 *** 0.001

# RESULTS: Mediating effect of work performance

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| Observations | | 2,804 |

**PERFORMANCE KNOWN**

| | | |
|---|---|---|
| **B. Models estimated on data records with known work performance (Models 2a-c)** | | |
| **Mode of work** (ref: office) | | |
| Hybrid | -0.010 | -0.010 |
| | (-0.47) | (-0.49) |
| Full-time telework | -0.101*** | -0.065** |
| | (-4.75) | (-3.03) |
| Observations | | 2818 |

† 0.1 * 0.05 ** 0.01 *** 0.001

# RESULTS: Mediating effect of work commitment

**PERFORMANCE KNOWN**

Marginal effects (t-stat in parantheses)

| | Promotion | Salary increase |
|---|---|---|
| **Total effect** | | |
| Hybrid vs Office | -0.011 | -0.012 |
| | (-0.51) | (0.56) |
| Full-time telework vs Office | -0.103*** | -0.067** |
| | (-4.81) | (-3.13) |
| **Natural indirect effect** | | |
| Hybrid vs Office | 0.025* | -0.024* |
| | (-2.17) | (-2.16) |
| Full-time telework vs Office | -0.085*** | -0.081*** |
| | (-6.54) | (-6.50) |
| **Natural direct effect** | | |
| Hybrid vs Office | 0.015 | 0.012 |
| | (0.82) | (0.65) |
| Full-time telework vs Office | -0.018 | 0.015 |
| | (-0.96) | (0.8) |
| Observations | 2818 | 2818 |

† 0.1 * 0.05 ** 0.01 *** 0.001

due to perceived work commitment

# RESULTS: Mediating effect of work commitment

**PERFORMANCE KNOWN**

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# Gender and parenthood

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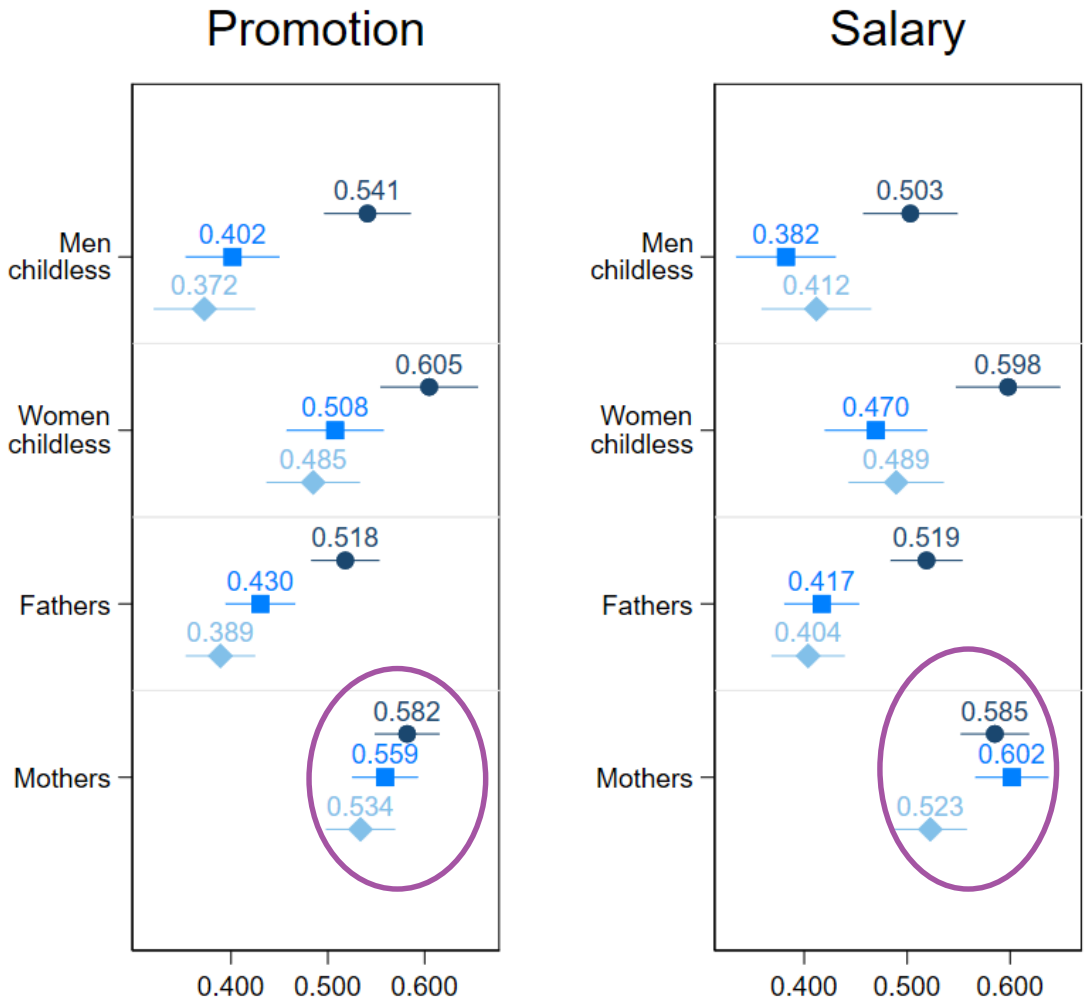
# RESULTS: sample unknown performance

Predicted probabilities with 83% CI



# RESULTS: Mediating effect of work performance

PERFORMANCE UNKNOWN

| | FATHERS | | MOTHERS | |
|---|---|---|---|---|
| | promotion | salary increase | promotion | salary increase |
| **A. Models on data records with unknown work performance (Models 6a-l)** | | | | |
| **Mode of work** (ref: office) | | | | |
| Hybrid | -0.086* | -0.102* | -0.024 | 0.018 |
| | (-2.67) | (-2.67) | (-0.63) | (0.48) |
| Home | -0.128** | -0.116** | -0.047 | -0.061† |
| | (-2.99) | (-2.99) | (-1.29) | (-1.66) |
| Observations | | 872 | | 957 |

† 0.1 * 0.05 ** 0.01 *** 0.001

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# RESULTS: Mediating effect of work performance

PERFORMANCE UNKNOWN

PERFORMANCE KNOWN

| | FATHERS | | MOTHERS | |
|---|---|---|---|---|
| | promotion | salary increase | promotion | salary increase |
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| Observations | | 872 | | 957 |
| **B. Models estimated on data records with known work performance (Models 7a-l)** | | | | |
| **Mode of work** (ref: office) | | | | |
| Hybrid | 0.018 | -0.018 | -0.037 | -0.006 |
| | (0.49) | (-0.48) | (-1.04) | (-0.16) |
| Full-time telework | -0.083* | -0.047 | -0.151*** | -0.069† |
| | (-2.25) | (-1.27) | (-4.19) | (-1.92) |
| Observations | | 913 | | 975 |

† 0.1 * 0.05 ** 0.01 *** 0.001

# RESULTS: Mediating effect of work commitment

| | FATHERS | | MOTHERS | |
|---|---|---|---|---|
| | Promotion | Salary increase | Promotion | Salary increase |
| **Total effect** | | | | |
| Hybrid vs Office | 0.018 | -0.019 | -0.037 | -0.004 |
| | (0.48) | (-0.51) | (-1.03) | (-0.12) |
| Full-time telework vs Office | -0.083* | -0.047 | -0.153*** | -0.071* |
| | (-2.25) | (-1.28) | (-4.24) | (-1.96) |
| **Natural indirect effect** | | | | |
| Hybrid vs Office | -0.036† | -0.035† | -0.018 | -0.016 |
| | (-1.92) | (1.92) | (-0.86) | (-0.86) |
| Full-time telework vs Office | -0.088*** | -0.08*** | -0.079*** | -0.076*** |
| | (-3.71) | (-3.70) | (-3.58) | (-3.54) |
| **Natural direct effect** | | | | |
| Hybrid vs Office | 0.054 | 0.016 | -0.019 | 0.012 |
| | (1.61) | (0.48) | (-0.67) | (0.42) |
| Full-time telework vs Office | 0.005 | 0.033 | -0.074* | 0.005 |
| | (0.14) | (0.96) | (-2.44) | (0.17) |
| Observations | 913 | | 975 | |

† 0.1 * 0.05 ** 0.01 *** 0.001

# RESULTS: Mediating effect of work commitment

| | FATHERS | | MOTHERS | |
|---|---|---|---|---|
| | Promotion | Salary increase | Promotion | Salary increase |
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# Company context

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# COMPANY CONTEXT

## WfH INCIDENCE

- WfH less stigmatizing, not linked to lower work commitment
- Employers more aware of what it means for workers' performance
- Integration of remote workers into the company

## IDEAL WORKER NORMS

- High availability to the employer / clients
- 'Face time' as a marker of high work commitment
- Few commitments outside of paid work

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# DATA ANALYSIS (3)

## SAMPLE WITH UNKNOWN WORK PERFORMANCE

### Logistic regression

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- **Basic controls:** workers' sex, age, work experience, skills (social and analytical), parenthood status

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6. Often do not take vacations
7. Do not take time off for family reasons if work needs to be done
8. Do not call in sick
9. Often work in the office beyond standard work hours

*1 – definitely not …… 4 – definitely yes*

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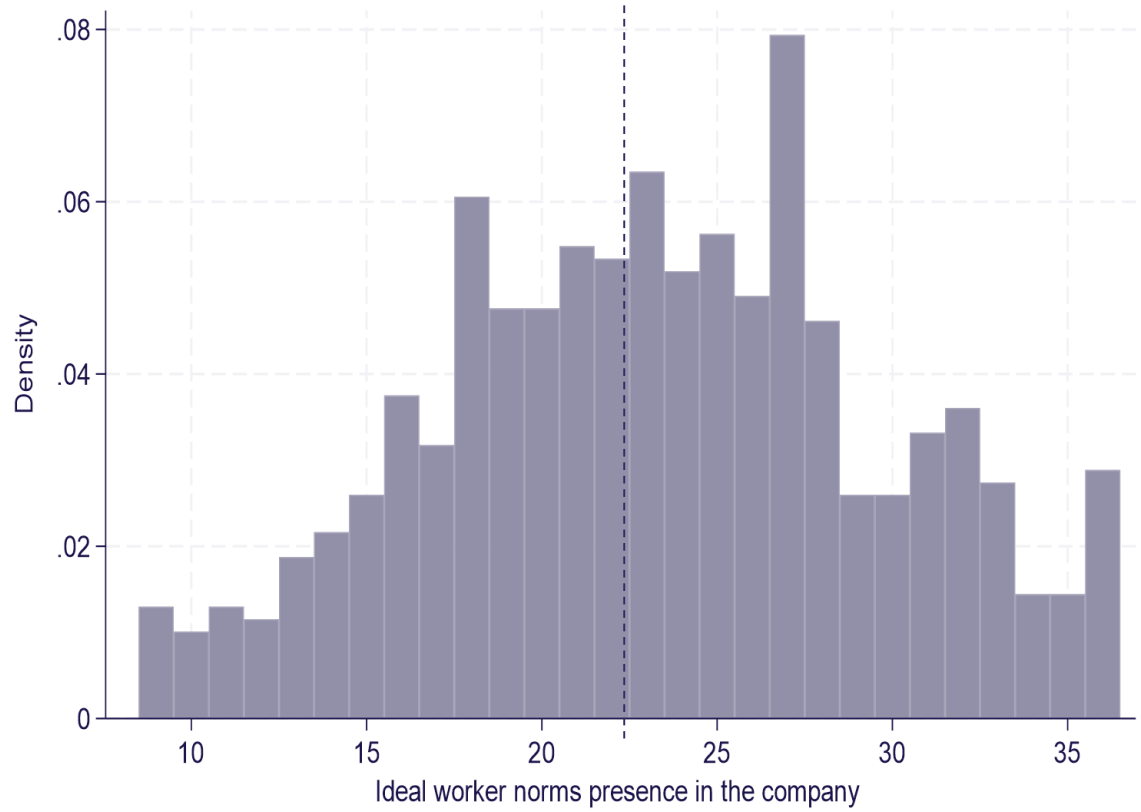
# Company context: indicators

## WfH INCIDENCE

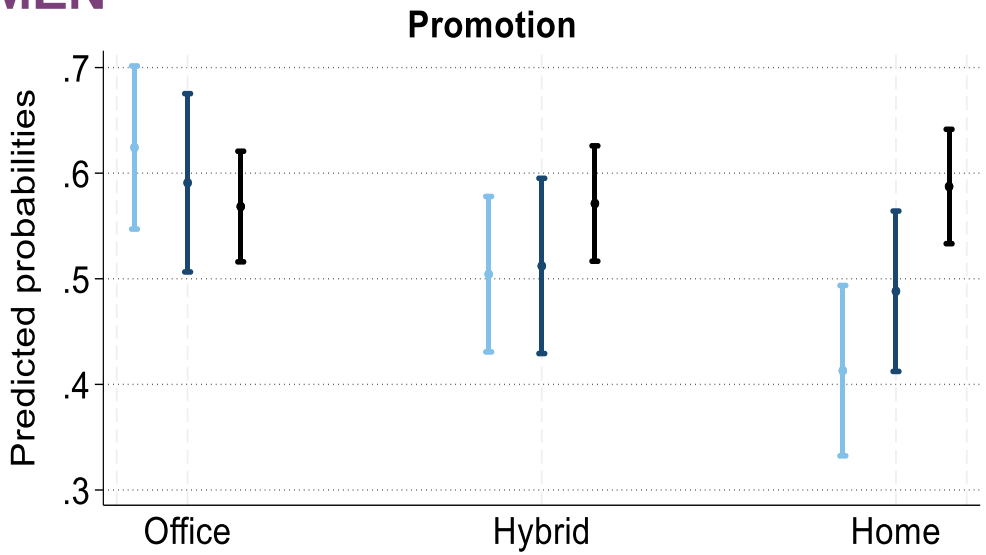
| Share of employees who WFH | |
|---|---|
| none | 16.2 |
| <20% | 11.2 |
| 20%-39% | 8.6 |
| 40%-59% | 6.4 |
| 60%-79% | 7.0 |
| >80% | 50.5 |

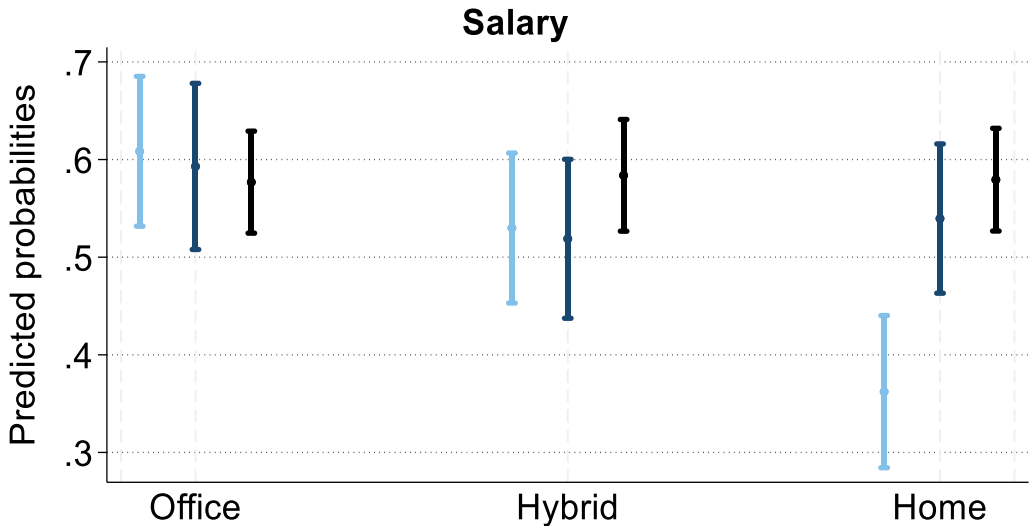
## IDEAL WORKER NORMS



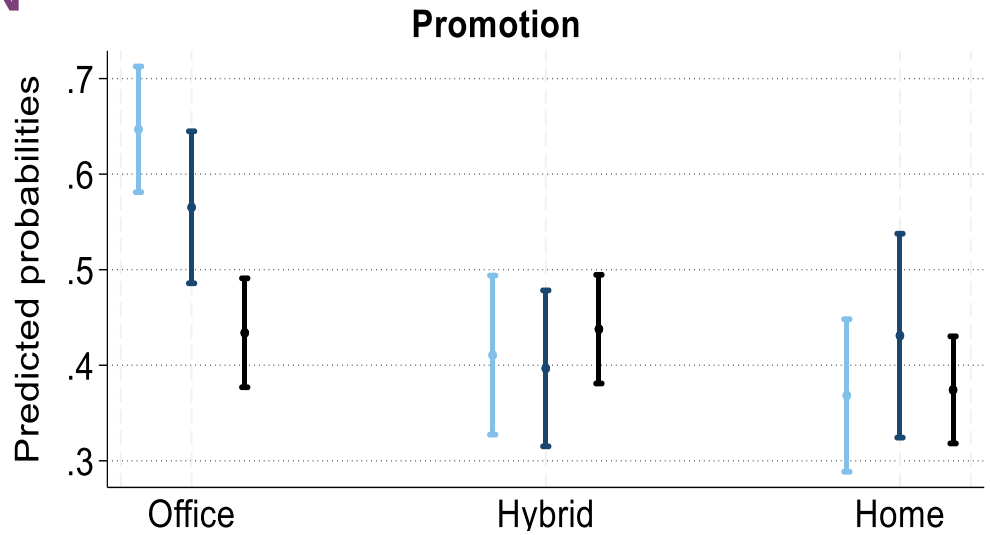
# RESULTS: Moderating role of the WfH incidence in the organisation

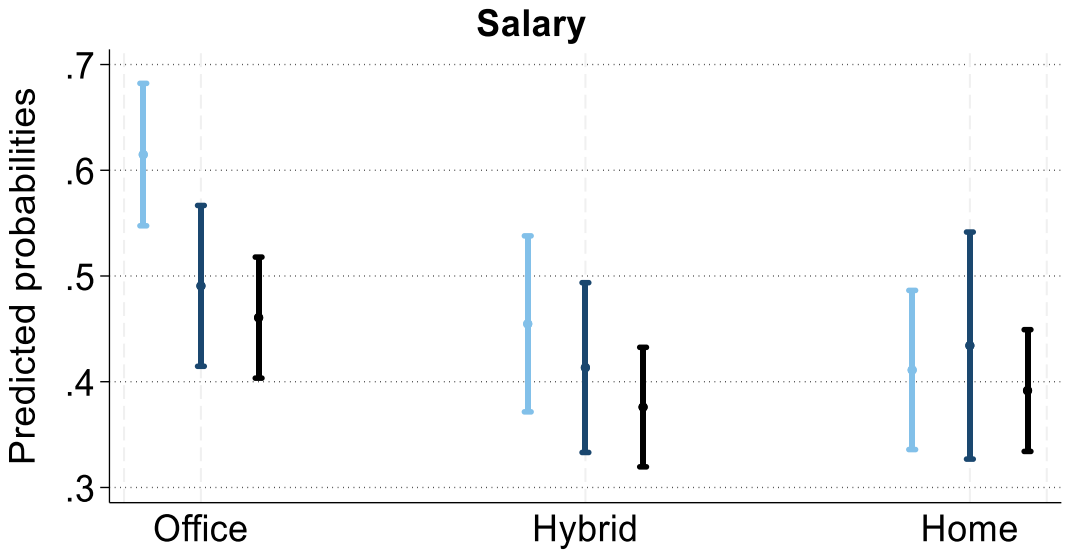
## WOMEN




## MEN



# RESULTS: Moderating role of the WfH incidence in the organisation

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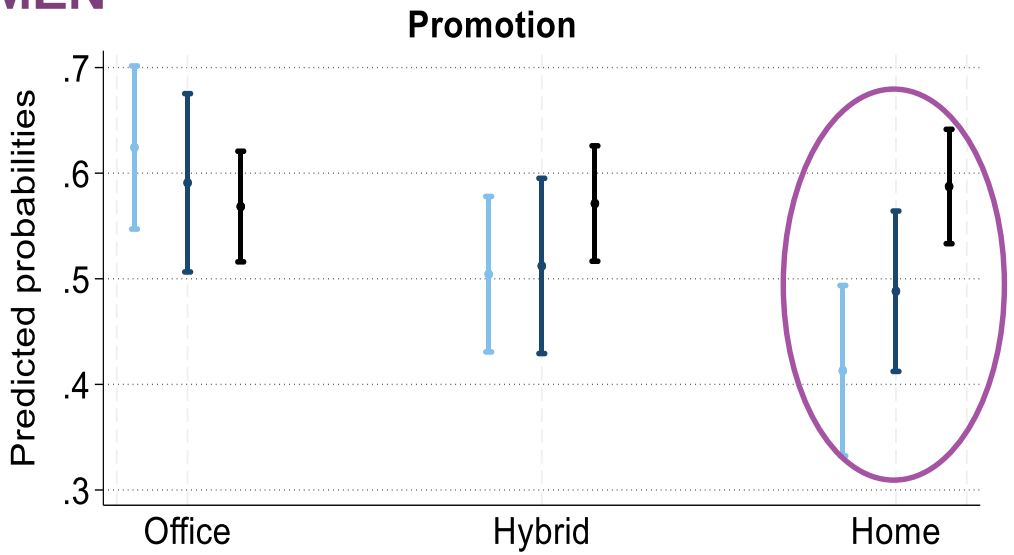


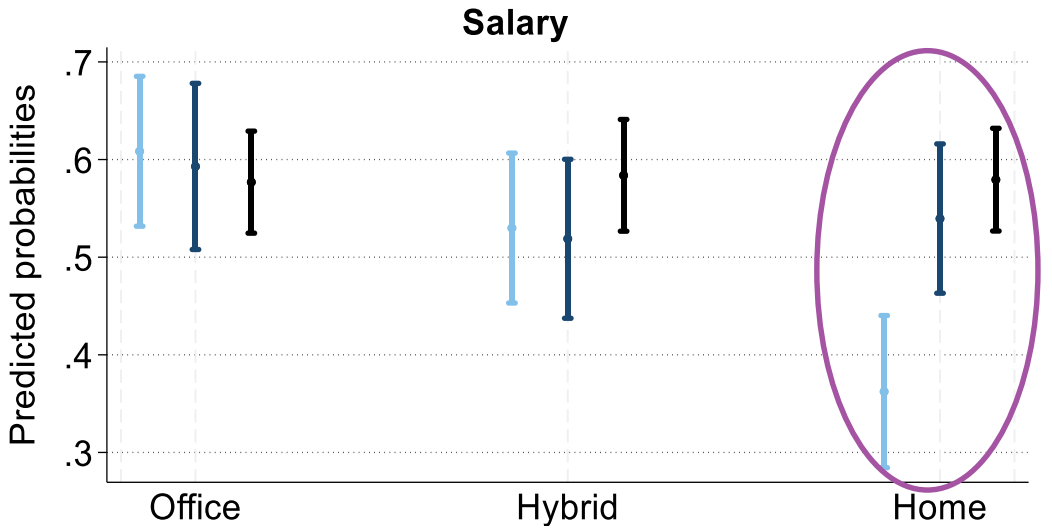


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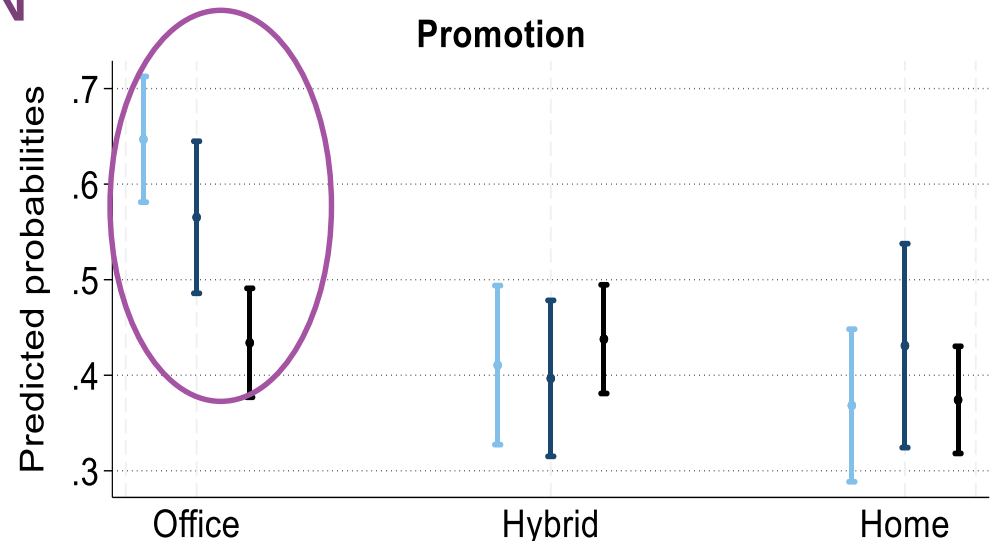
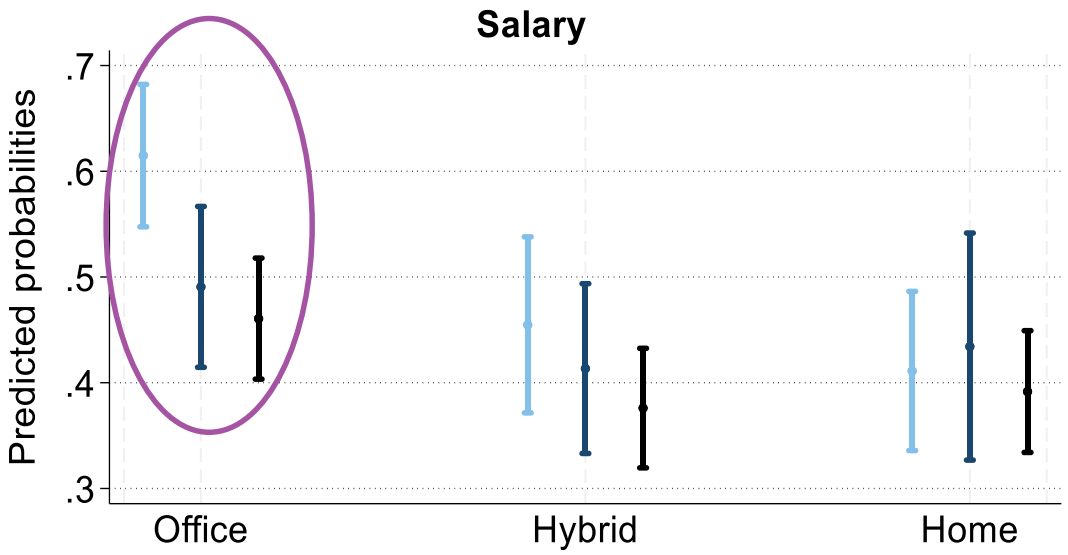
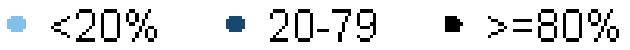
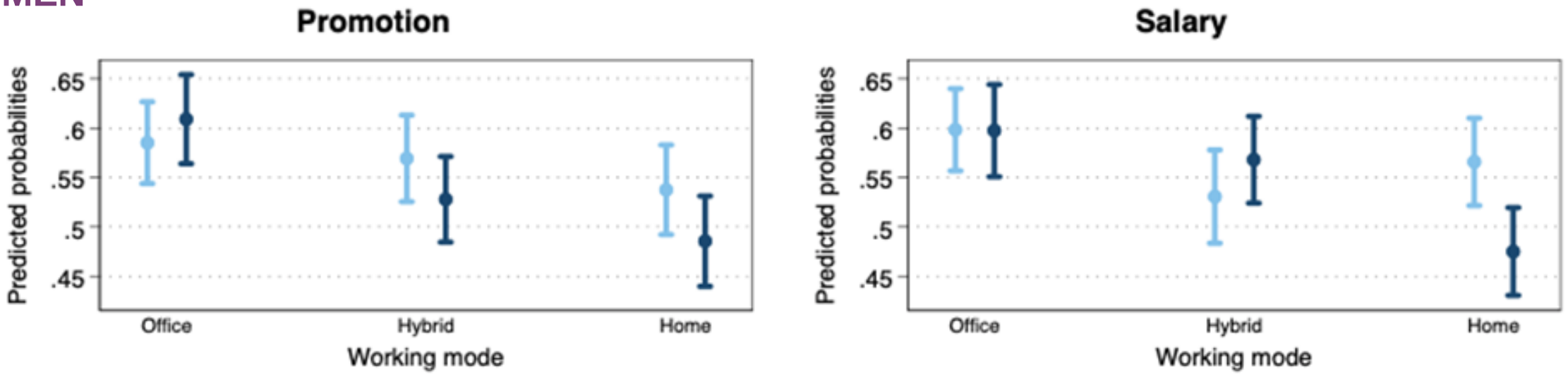


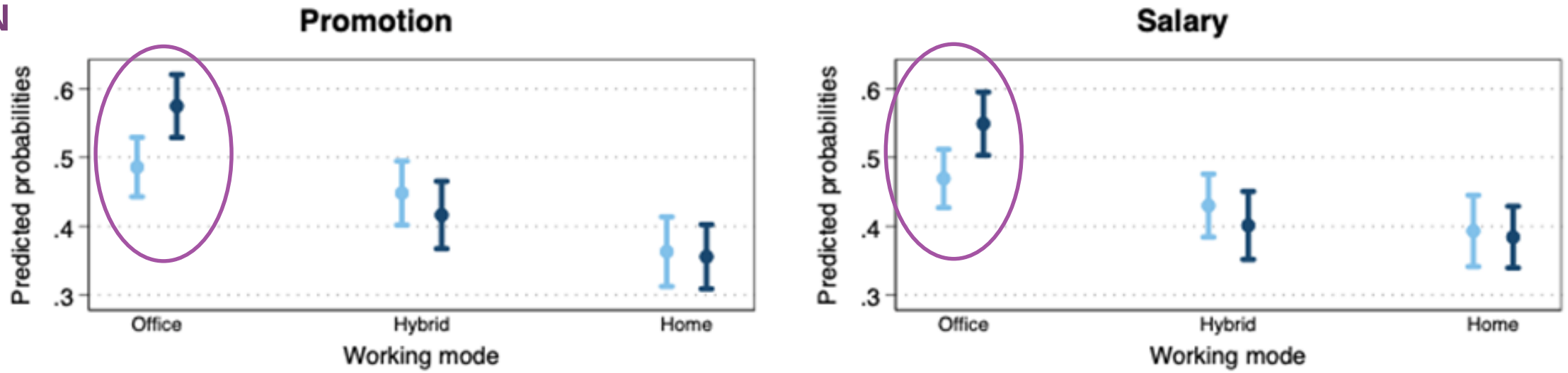



# RESULTS: Moderating role of the availability of IDEAL WORKER NORMS in the organisation

## WOMEN




## MEN



# CONCLUSIONS

- Hybrid and home-based workers are less likely to be chosen for promotion or salary increase
- The penalty for WfH is stronger in companies with strong ideal worker norms and lower incidence of WfH
- The difference between hybrid and office-based workers is partly explained by employers' assumptions about workers' performance; the rest by employers' perceptions about workers' commitment
- These general findings hold for fathers (no fatherhood bonus!), but not mothers!

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# CONCLUSIONS

- Mothers who WFH have similar chances for promotion and salary increase as onsite working mothers as long as employers do not know their performance
- Once employers know their performance they tend to evaluate teleworking mothers far more critically (even more critically than teleworking fathers)
- Employers assume (expect ?) teleworking mothers to be more productive when they work from home (in exchange for the flexibility?)

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# Thank you!

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POLISH RETURNS

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| | |
|---|---|
| **Sex** (=1 if female) | 38.5 |
| **Number of children** | |
| 0 (no children) | 33.5 |
| 1 child | 38.6 |
| 2 children | 21.0 |
| 3 and more children | 6.8 |

| **Occupation** | |
|---|---|
| Network Manager | 3.5 |
| Software Developer or Computer Programmer | 6.6 |
| Systems Administrator | 2.7 |
| Other IT professional | 17.2 |
| Accountant | 11.8 |
| Financial or business analyst | 3.8 |
| Investment or financial advisor | 1.6 |
| Retail or personal banker/loan officer | 1.6 |
| Other Finance professional | 7.8 |
| Recruiter | 1.1 |
| Other HR Professional | 4.7 |
| Sales support / Account Manager | 4.9 |
| Artist, graphic artist, visual design specialist | 1.2 |
| Attorney or Lawyer | 4.2 |
| Engineer | 12.6 |
| Management Consultant | 4.1 |
| Scientific researcher | 1.7 |
| Writer or journalist | 1.2 |
| Marketing and related disciplines | 4.9 |
| Other | 2.9 |

| **Sector** | |
|---|---|
| Manufacturing | 11.0 |
| Electricity, Gas, Steam, and Air Conditioning Supply | 2.1 |
| Water Supply; Sewerage, Waste Management | 1.1 |
| Construction | 4.7 |
| Wholesale and Retail Trade; Repair of motor vehicles | 3.8 |
| Transportation and Storage | 3.1 |
| Accommodation and Food Service Activities | 1.3 |
| Information and Communication | 14.2 |
| Financial and Insurance Activities | 20.9 |
| Real Estate Activities | 1.3 |
| Professional, Scientific and Technical Activities | 10.0 |
| Administrative and Support Service Activities | 1.2 |
| Public Administration and Defense; Compulsory Social Security | 3.3 |
| Education | 3.6 |
| Human Health and Social Work Activities | 3.1 |
| Arts, Entertainment and Recreation | 2.8 |
| Other | 12.5 |

| Company size | |
|---|---|
| 10 to 19 | 9.1 |
| 20 to 34 | 11.4 |
| 35 to 49 | 8.5 |
| 50 to 99 | 5.2 |
| 100 to 249 | 8.4 |
| 250 to 499 | 8.4 |
| 500 to 999 | 8.3 |
| > 1,000 | 40.6 |

| Department | |
|---|---|
| Accounting / Finance | 18.4 |
| Administration | 1.3 |
| Business Analytics | 1.9 |
| Customer Relations | 1.1 |
| Engineering | 10.0 |
| HR | 4.9 |
| IT | 23.3 |
| Legal | 3.7 |
| Management | 10.0 |
| Marketing | 3.6 |
| Operations | 5.5 |
| Promotion / PR | 10.0 |
| Research and development | 3.7 |
| Sales | 5.5 |
| Other | 6.0 |