

The role of telework for productivity and well-being during and post-COVID-19

Results from an OECD survey among managers and workers

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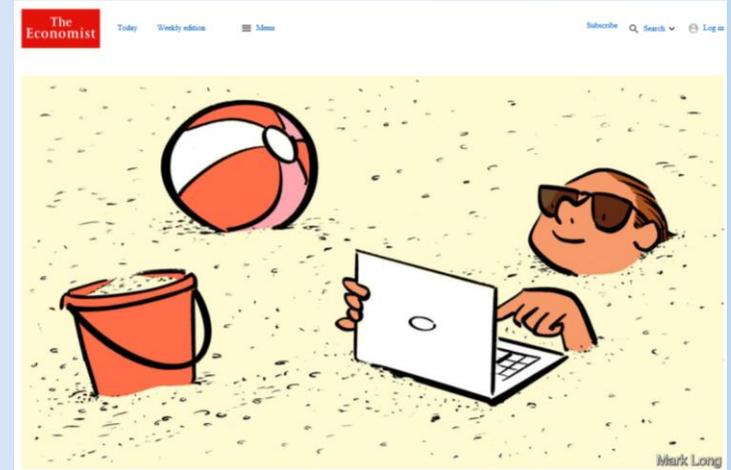
Joint Banque de France – OECD GFP Workshop | 17 December 2021



Background

COVID-19 catalysed widespread use of telework

- What happens to productivity if telework becomes the “new normal”?
 - Existing evidence mostly from pre-COVID period (Bloom et al, 2015 from call-centres)
 - Several surveys from individual countries in 2020/21
FRA: Bergeaud, Cette and Drapala; US: Barrero et al;
UK: Bloom et al; JPN: Morukawa, etc
- Need *cross-country* evidence on the longer term (post-COVID) impact and mechanisms among both *managers* and *workers*
- We contribute by running a survey in 25 countries



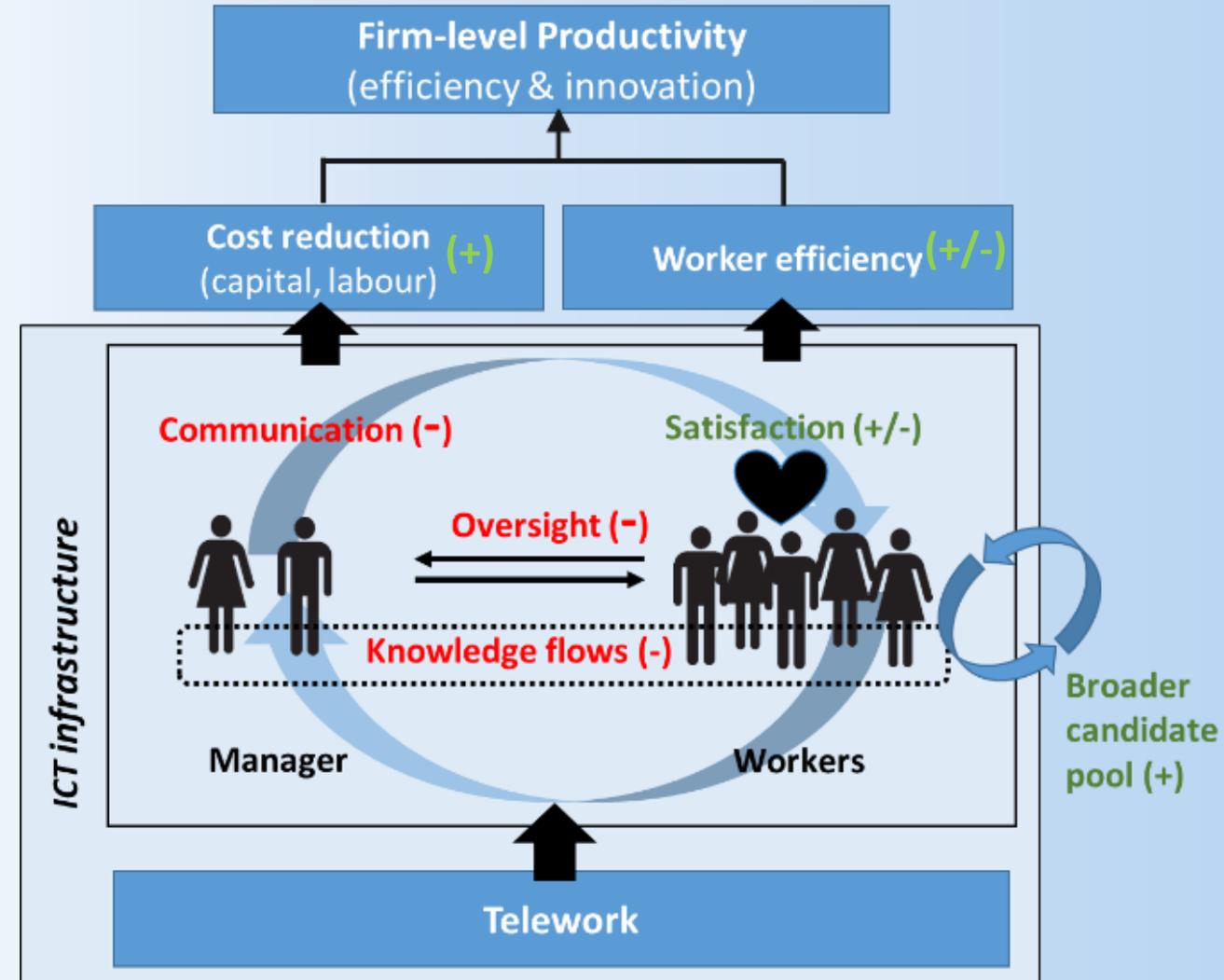
Bottom: Bloom (2020), “Working From Home: Past, Present, Future and some tips”



How does telework affect productivity?

A simple framework

1. Overall impact is a priori *ambiguous*
2. Worker satisfaction/well-being is key



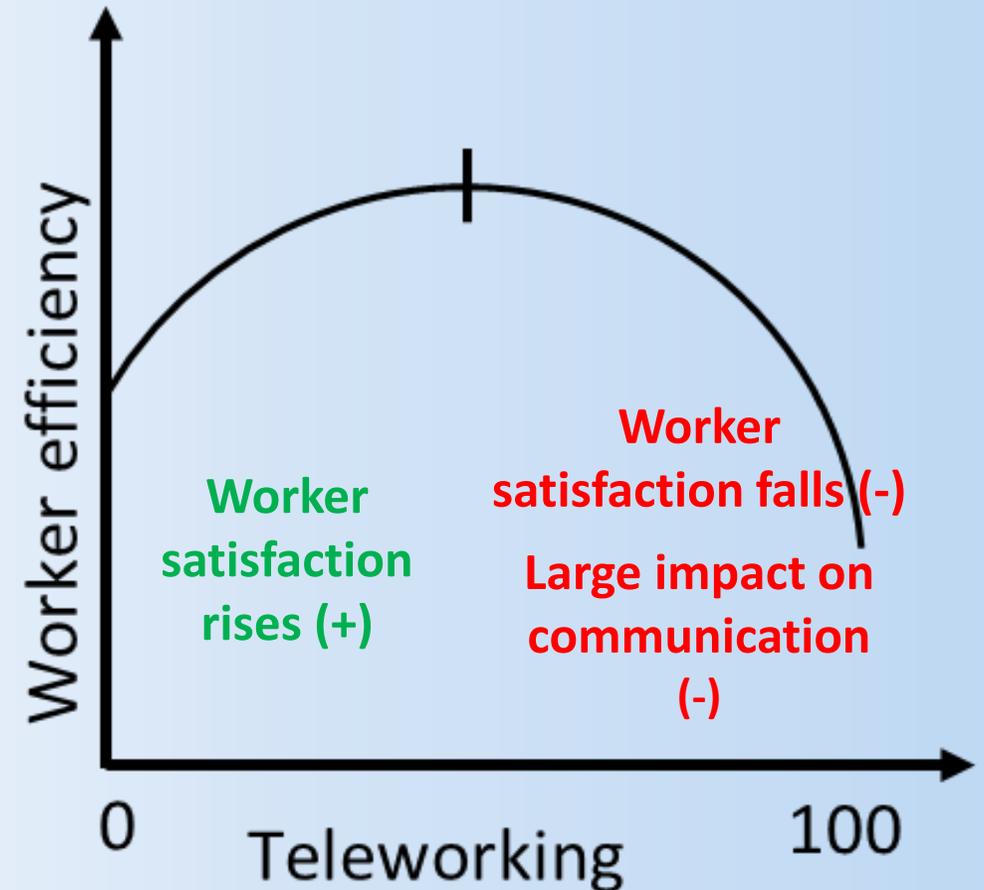


How does telework affect productivity?

A simple framework

1. Overall impact is a priori *ambiguous*
2. Worker satisfaction/well-being is key
3. **Worker-level** efficiency depends on telework *intensity* and the *voluntary* nature of telework
4. **Firm-level** efficiency additionally depends on coordination
5. In the **long-term**, impact on knowledge sharing is crucial

Efficiency and telework *at the worker-level*





Collecting new evidence

Our survey

Timely evidence from **25 countries** and several thousand respondents from *both*:

- Management through employer associations
- Employees through trade unions

We **thankfully acknowledge** the support of *BIAC, TUAC, ERRA and GFP Steering Group members* for the conception and dissemination of the questionnaire

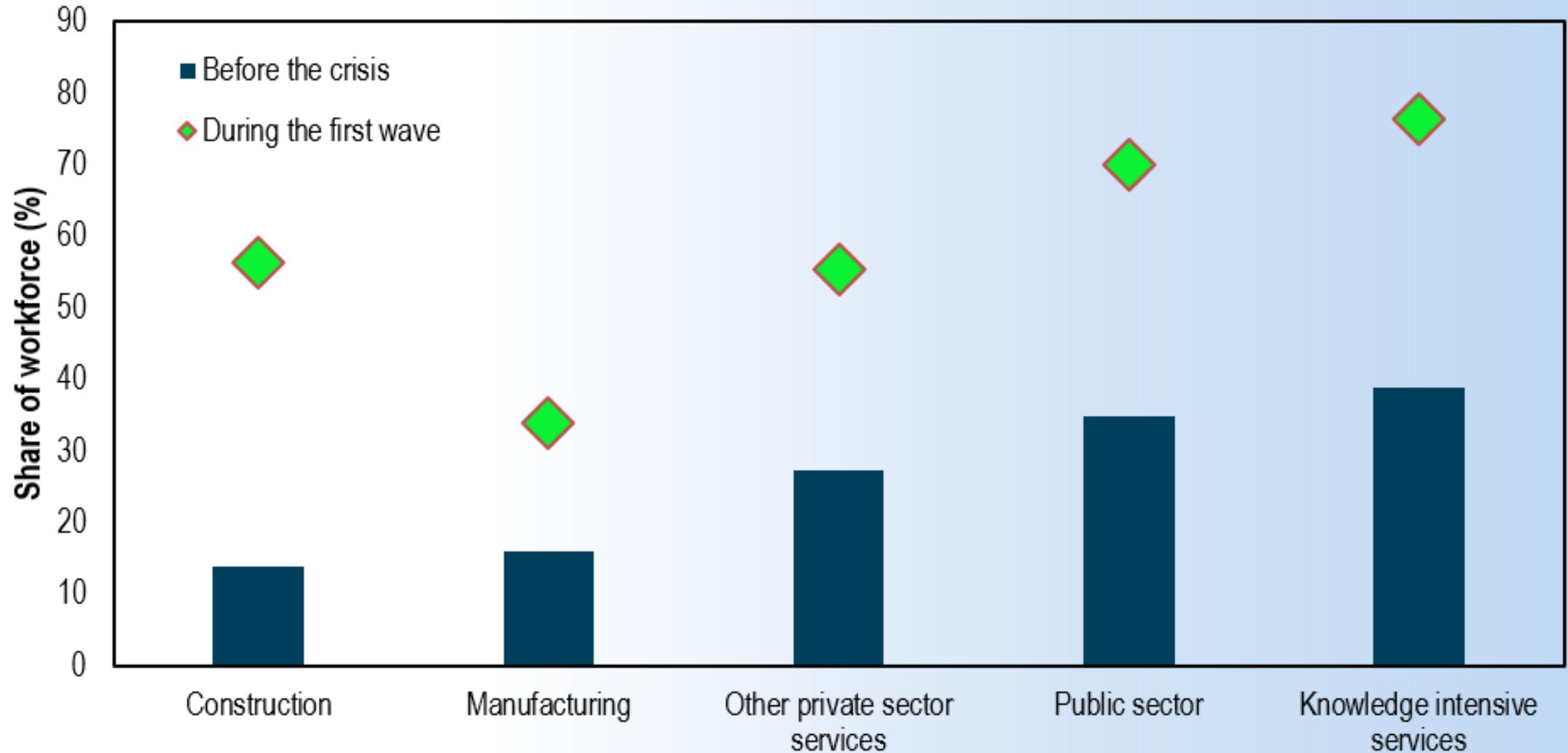
	I. Before COVID-19	II. During COVID-19	III. After COVID-19
Use	1. ✓	✓	3. ✓
Impact		2. Overall performance & assessment	Expected costs & benefits
Support		Short-term adaptation	Long-term adaptation; Main obstacles

1. TELEWORK USE

BEFORE AND
DURING THE FIRST WAVE OF COVID-19



Large increases in regular telework (≥ 1 day/week) during the initial wave of COVID-19, by sector



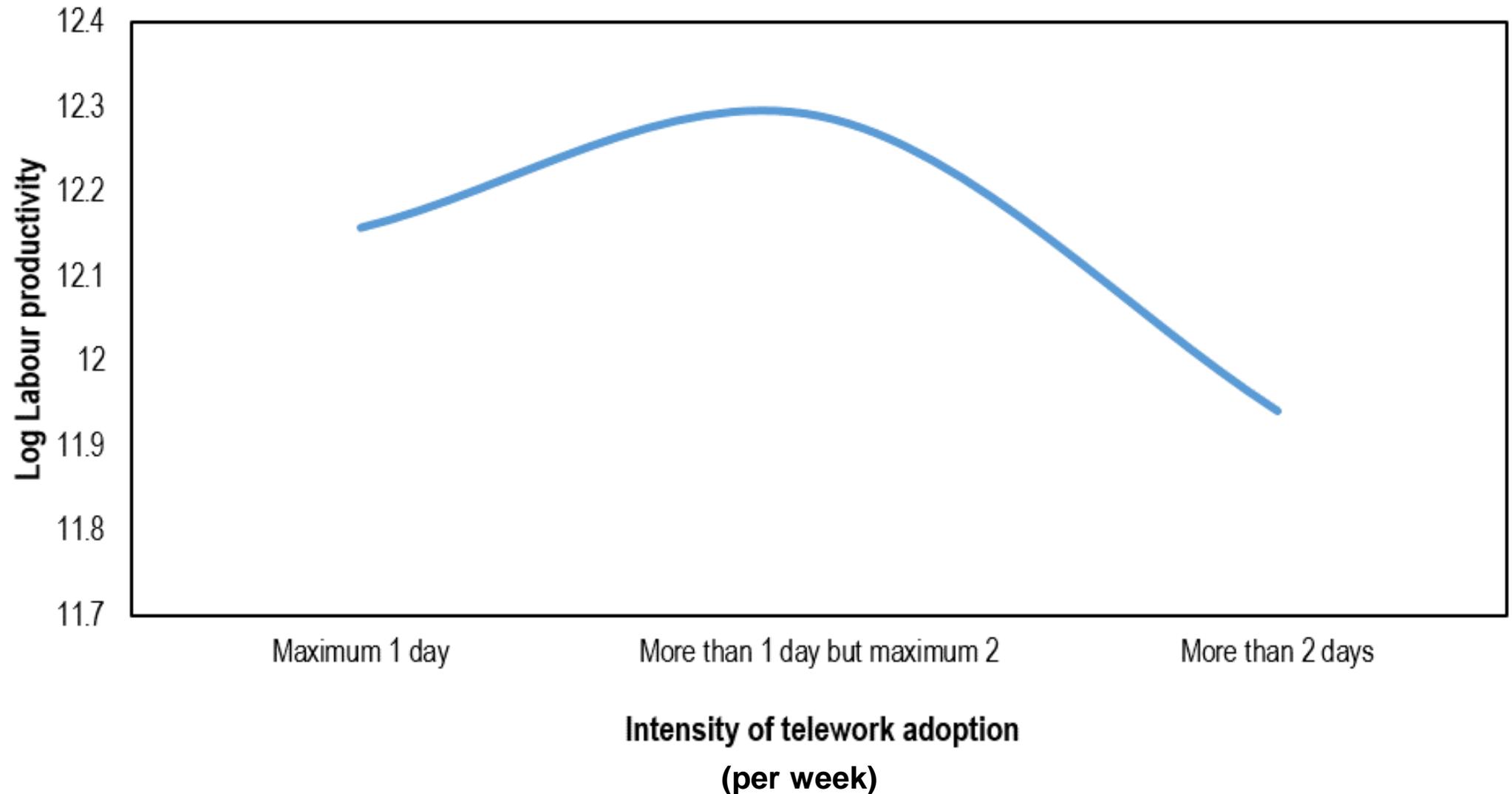


What are the characteristics of these companies?

Dependent Variable	Adoption rate of telework before the crisis		Adoption rate of telework during the crisis	
	(1)	(2)	(3)	(4)
Log Labour productivity (sales/employment)	0.045** (0.015)	0.042** (0.016)	0.057** (0.019)	0.051** (0.018)
Adoption rate before the crisis			0.432*** (0.057)	0.407*** (0.056)
Size FE	NO	YES	NO	YES
Country x Sector FE	YES	YES	YES	YES
N	554	554	554	554
r ²	0.265	0.273	0.465	0.486



A hump-shaped relationship between telework intensity and productivity *pre-pandemic*

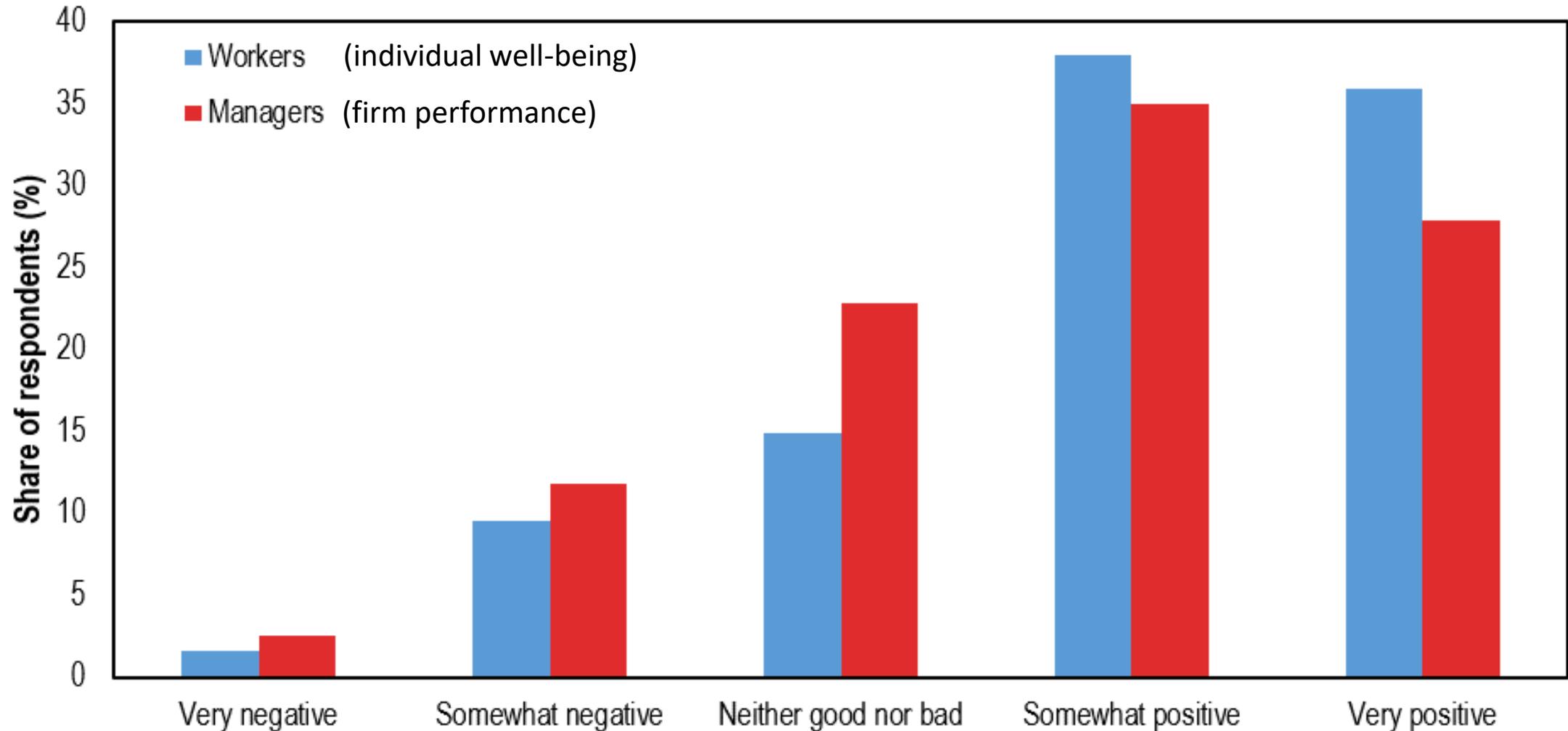


2. EXPERIENCE DURING COVID-19

MANAGERS AND WORKERS



The experience of managers and workers during the initial wave of the COVID-19 pandemic





What adaptive measures likely helped better firm performance according to managers?

$$FirmPerformance_{it} =$$

$$= \sum_j \beta_{1j} AdaptiveMeasures_{ijt} + \beta_2 RegularTW_{it-1} + SME_{it} + D_c + D_s$$

Regression coefficients

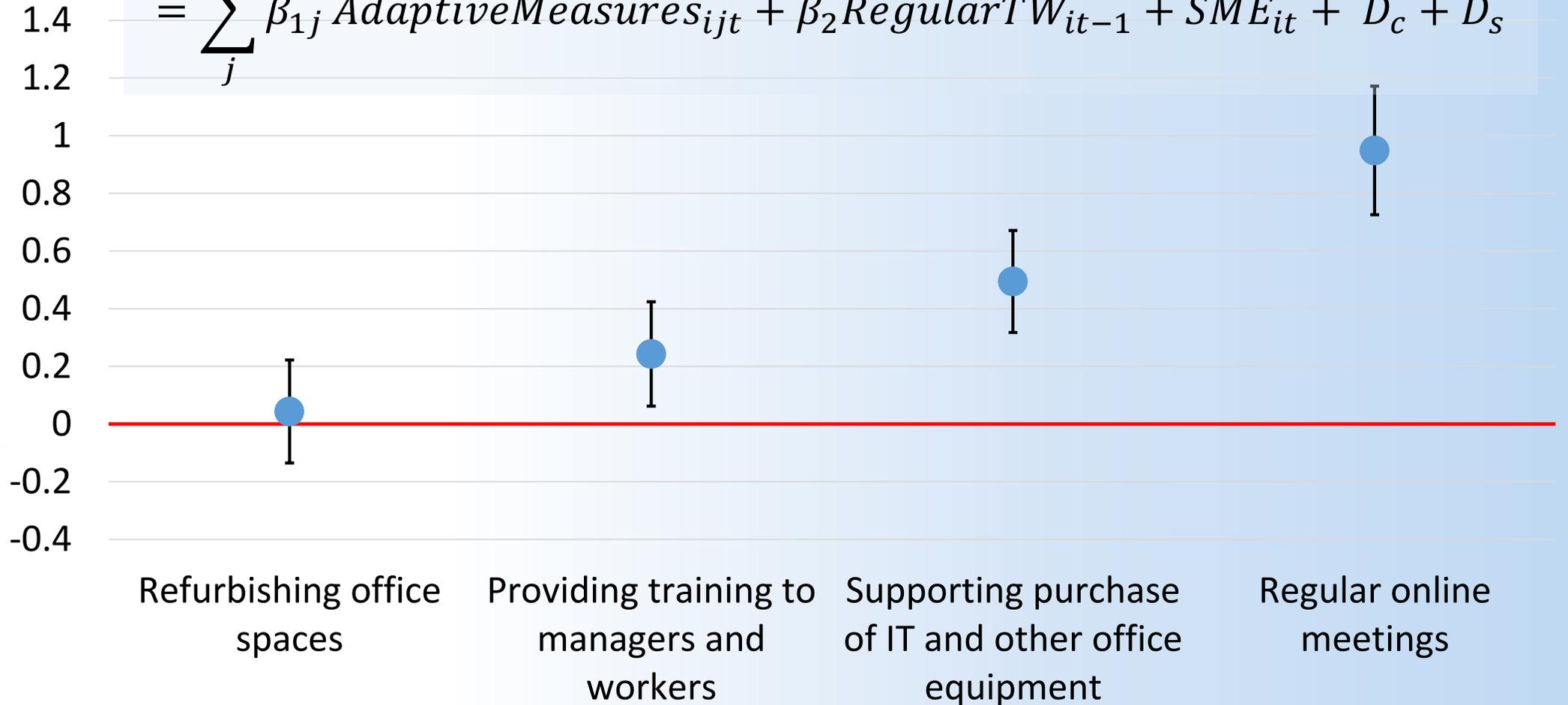
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4

Refurbishing office spaces

Providing training to managers and workers

Supporting purchase of IT and other office equipment

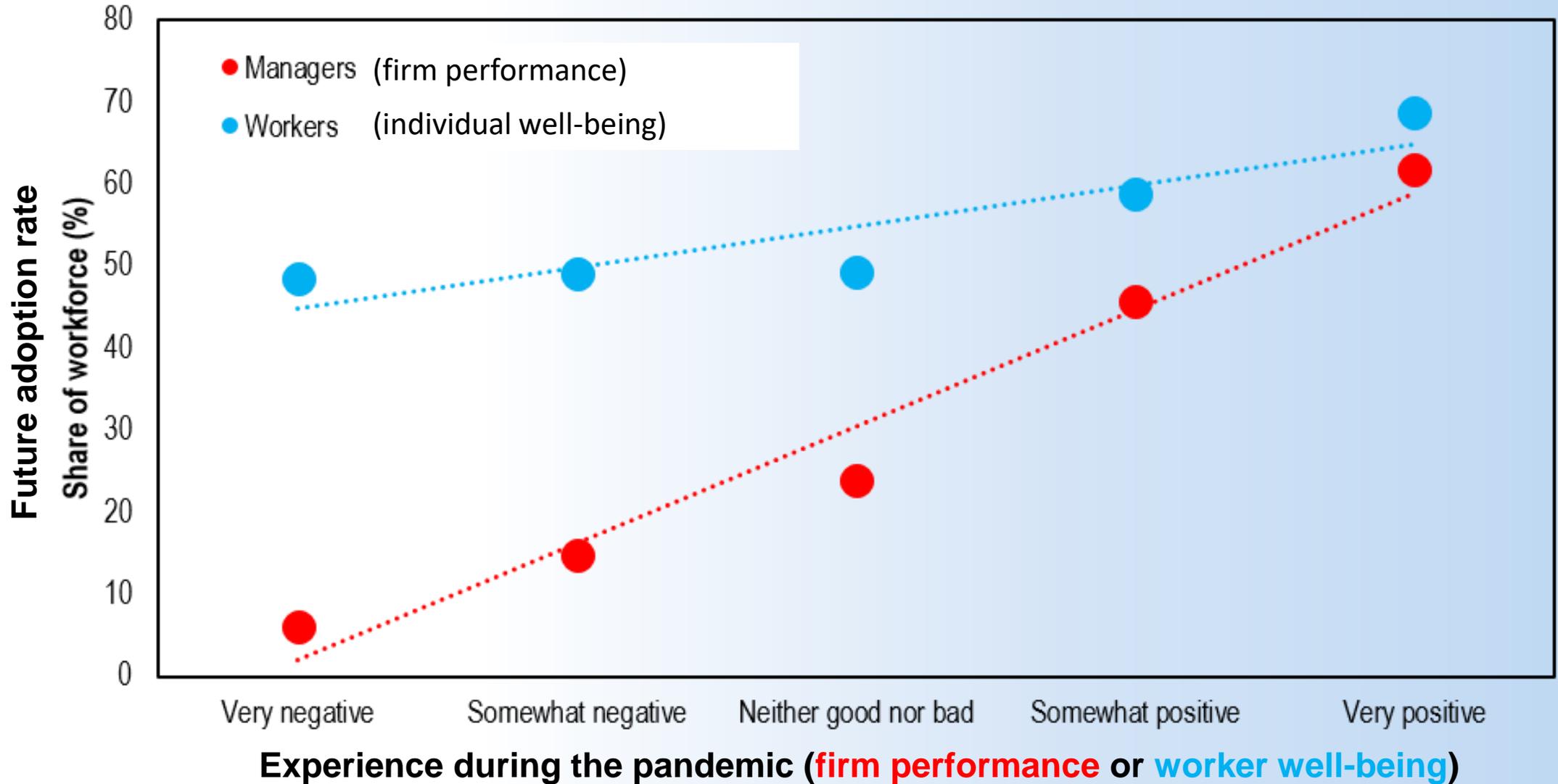
Regular online meetings



3. EXPECTATIONS FOR THE FUTURE MANAGERS AND WORKERS



A clear positive relationship between experience during COVID and desired future adoption rate



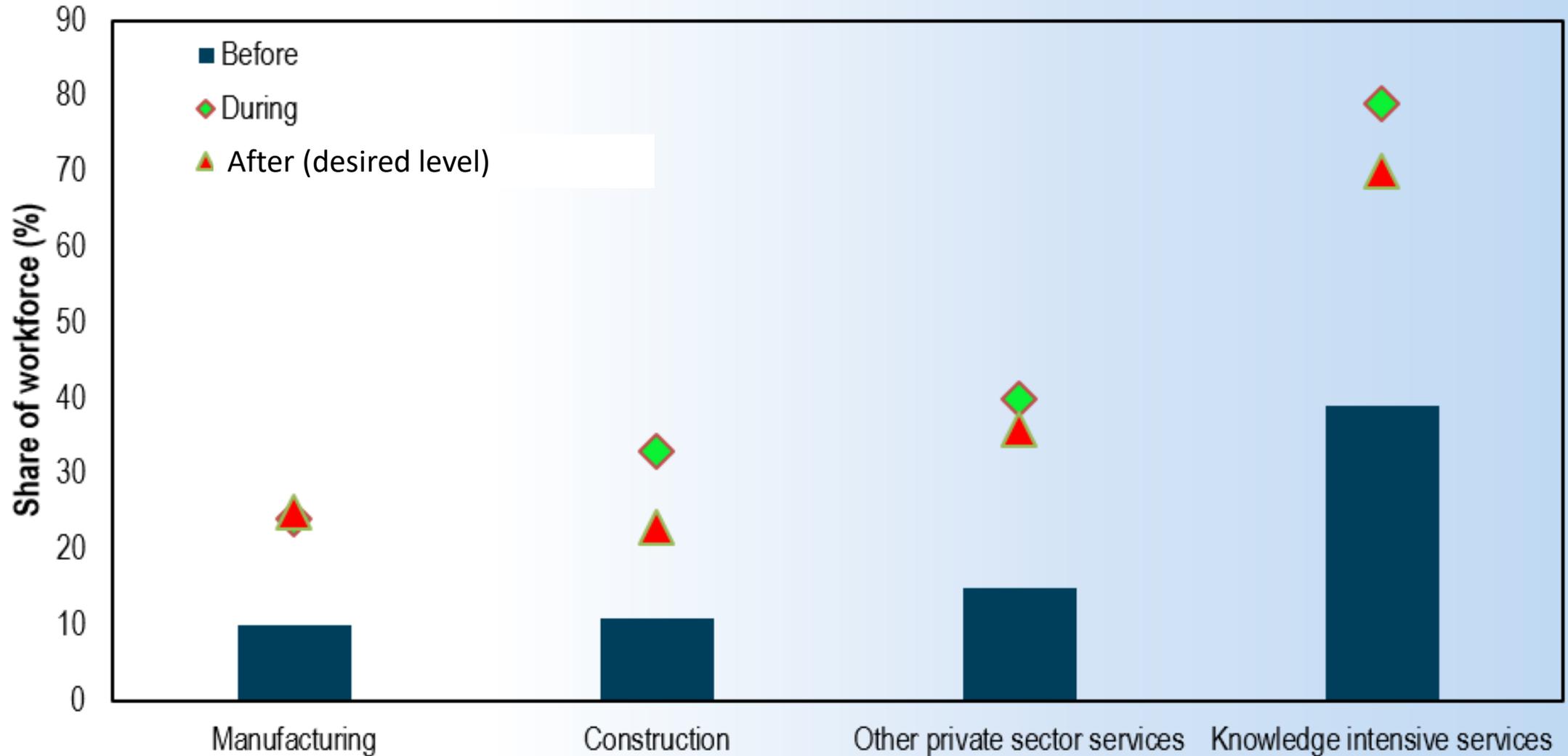


This very positive assessment **broke the stigma** associated with telework

Variable	Adoption rate in the future			
	(1)	(2)	(3)	(6)
Experience during COVID-19	0.122*** (0.006)			0.055*** (0.008)
Adoption rate during		0.659*** (0.032)		0.391*** (0.046)
Adoption rate before			0.633*** (0.035)	0.238*** (0.044)
Size FE	NO	NO	NO	YES
Country x Sector FE	NO	NO	NO	YES
N	877	877	877	877
R ²	0.212	0.400	0.242	0.533

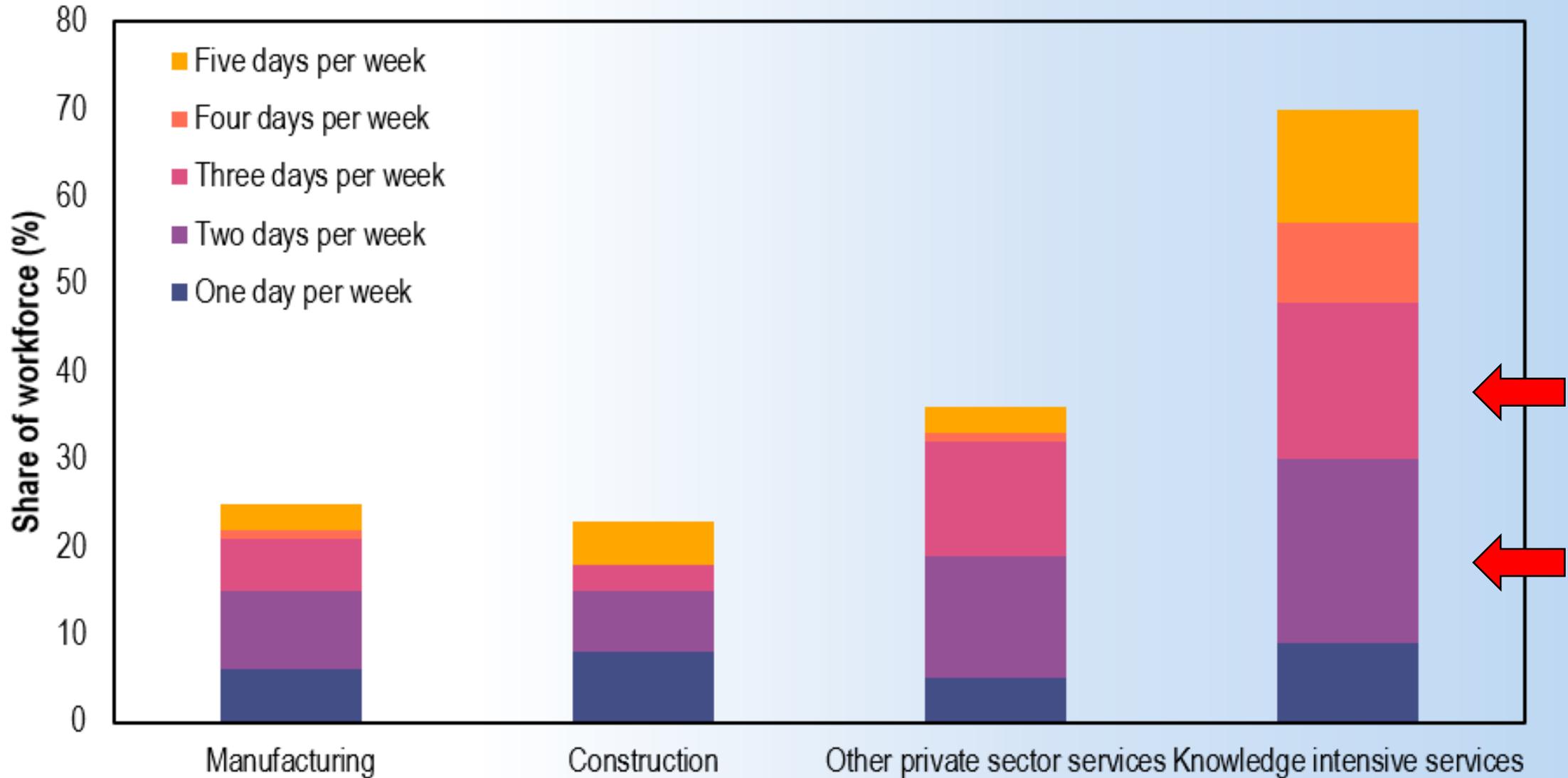


Regular telework (≥ 1 day/week) will be used by **more workers**, near peak levels during the pandemic



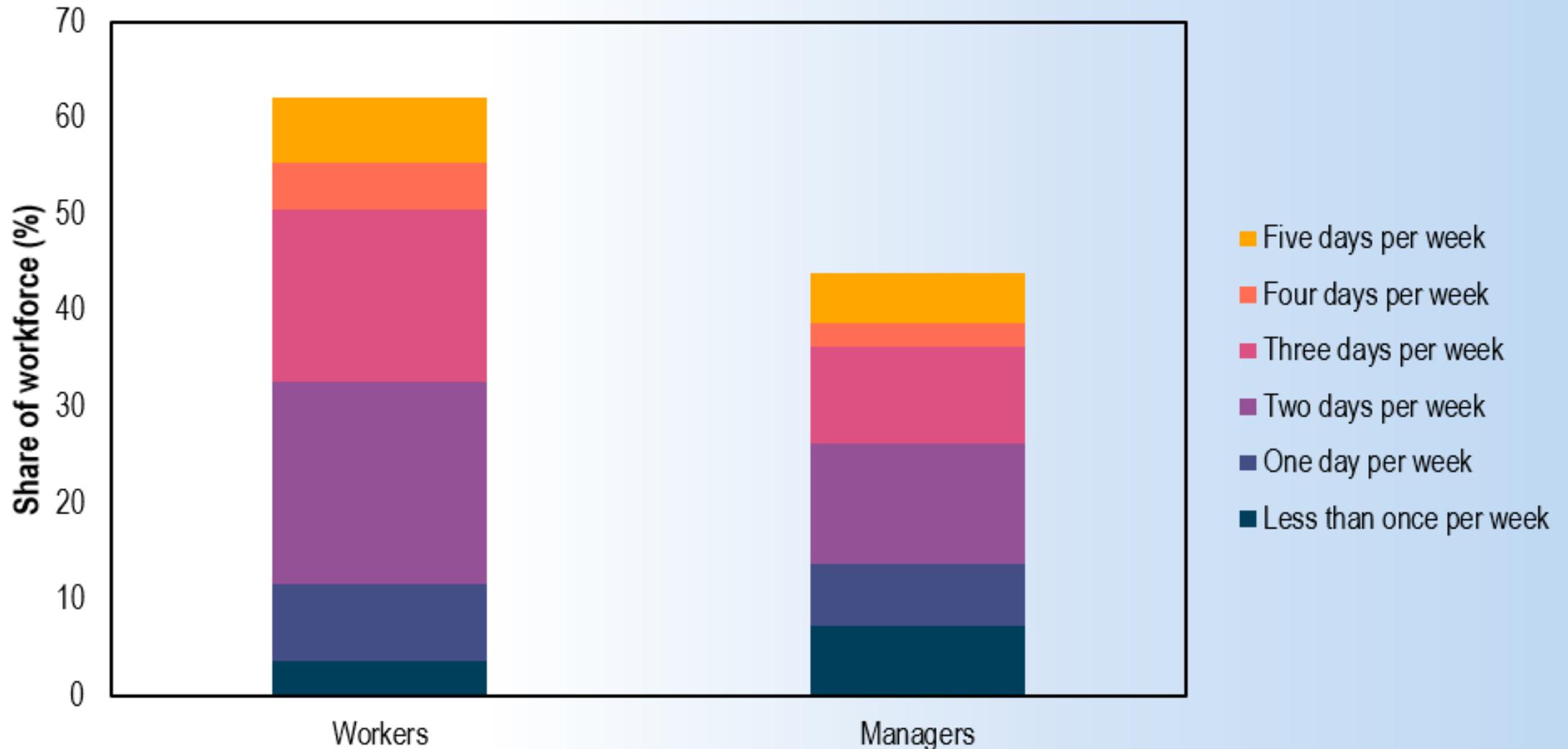


Most of the regular teleworkers are expected to work from home 2-3 days/week





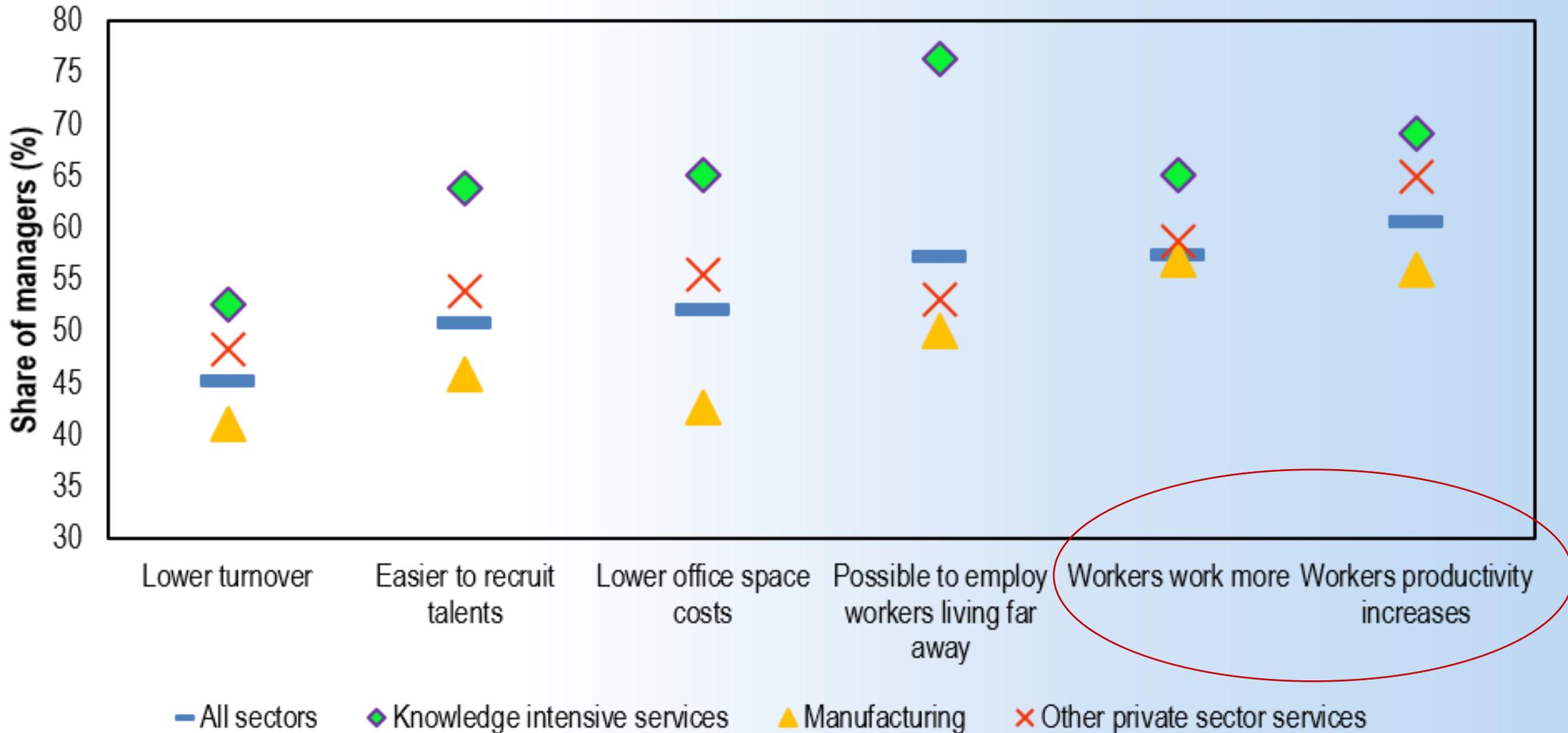
Workers and managers agree on the “sweet spot” of telework at **2-3 days per week**





Advantages of telework according to managers

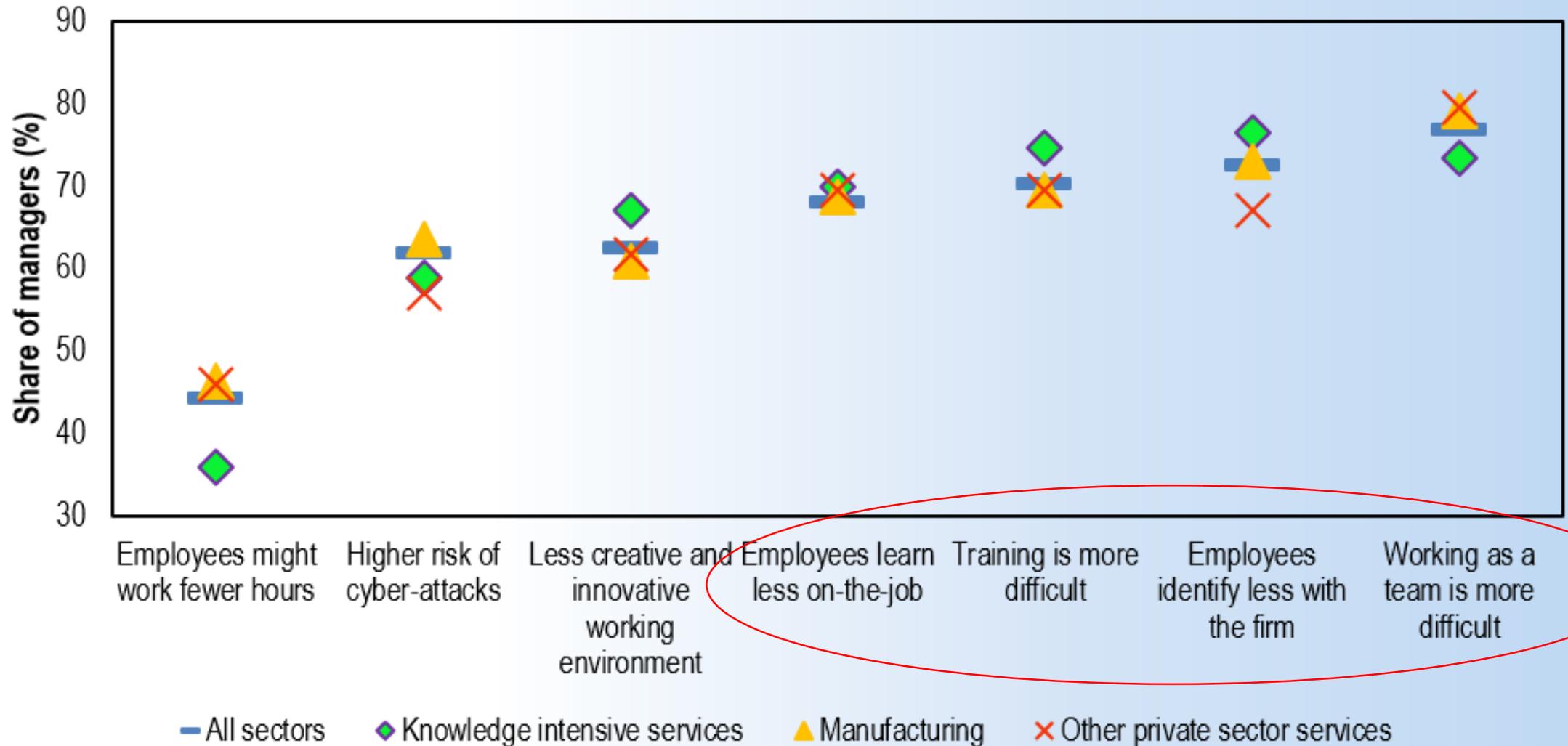
Increased productivity is the most frequent response





Managers are also aware of disadvantages

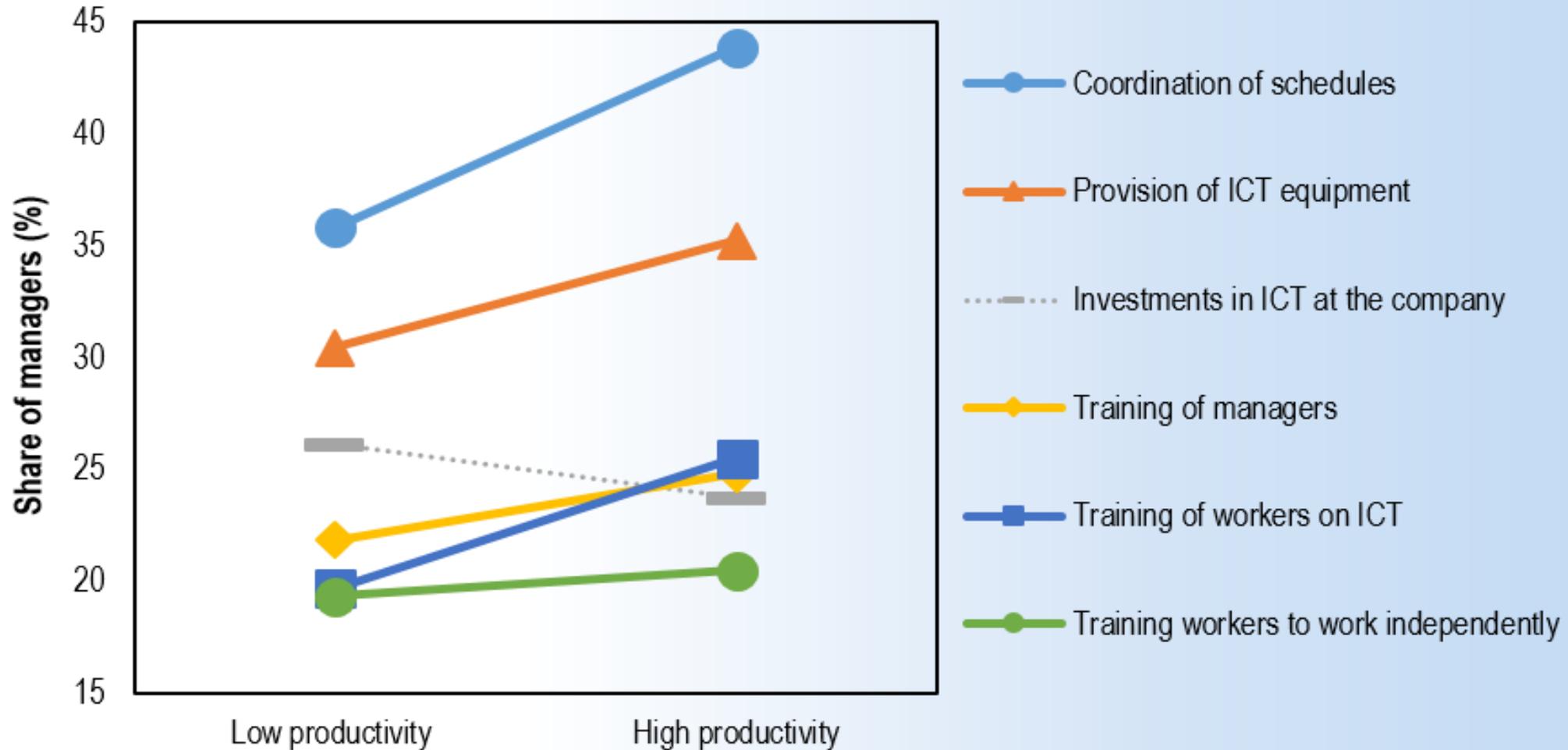
Most responses around difficult *knowledge sharing*





More productive companies plan to implement more adaptive measures to maximise telework benefits

→ *Widening productivity gaps even further?*



SUMMARY



Summary of telework survey results

1. COVID-19 catalysed more widespread telework which will likely stick

- Widespread telework was a *new but positive experience* for most managers & workers
- ...they *desire higher telework intensity*
- ...they desire a *hybrid week (2-3 days)*
- The positive experience contribute to breaking the stigma

2. Telework can raise firm performance...

- Managers expect telework to *improve worker efficiency, job matching* and enable *cost reductions*
- Productivity & telework positively related already pre-crisis

3. ..but potential downsides should be addressed to maximise gains

- Managers worry about *knowledge flows, team work* and *loyalty*
- ... and wish to adapt to maximise benefits (*coordination of schedules & ICT investments & training*)

Thank you

OE.CD/GFP

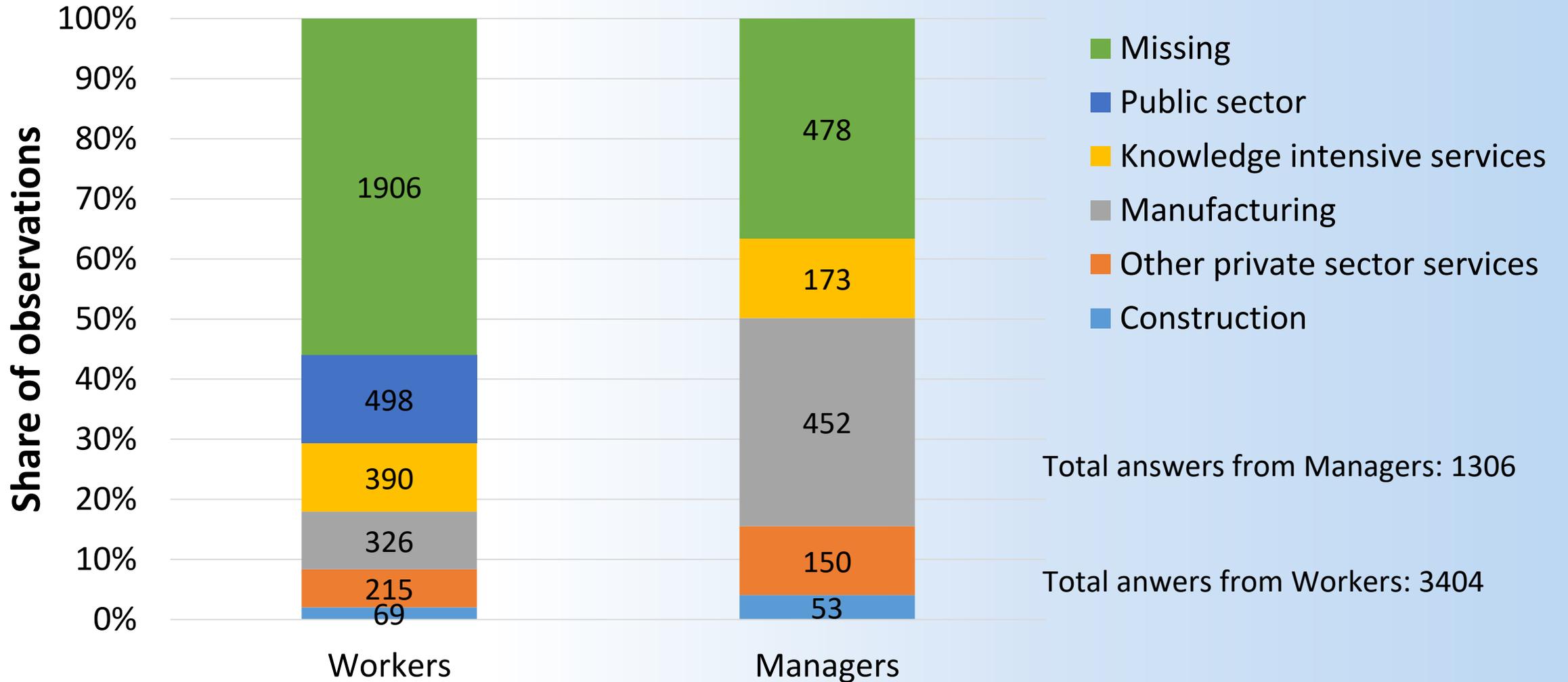
Productivity@OECD.org

ADDITIONAL SLIDES



Results

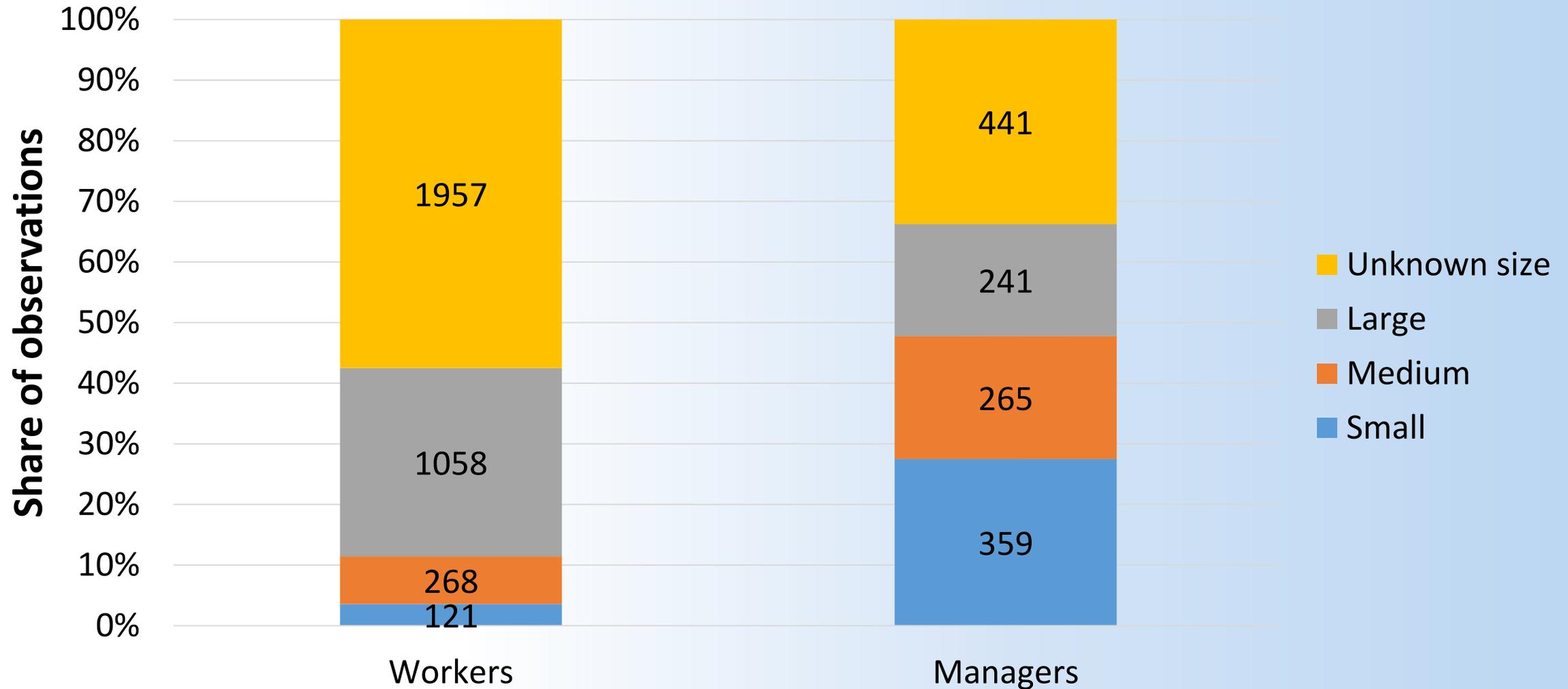
Responses from workers and managers by sector





Results

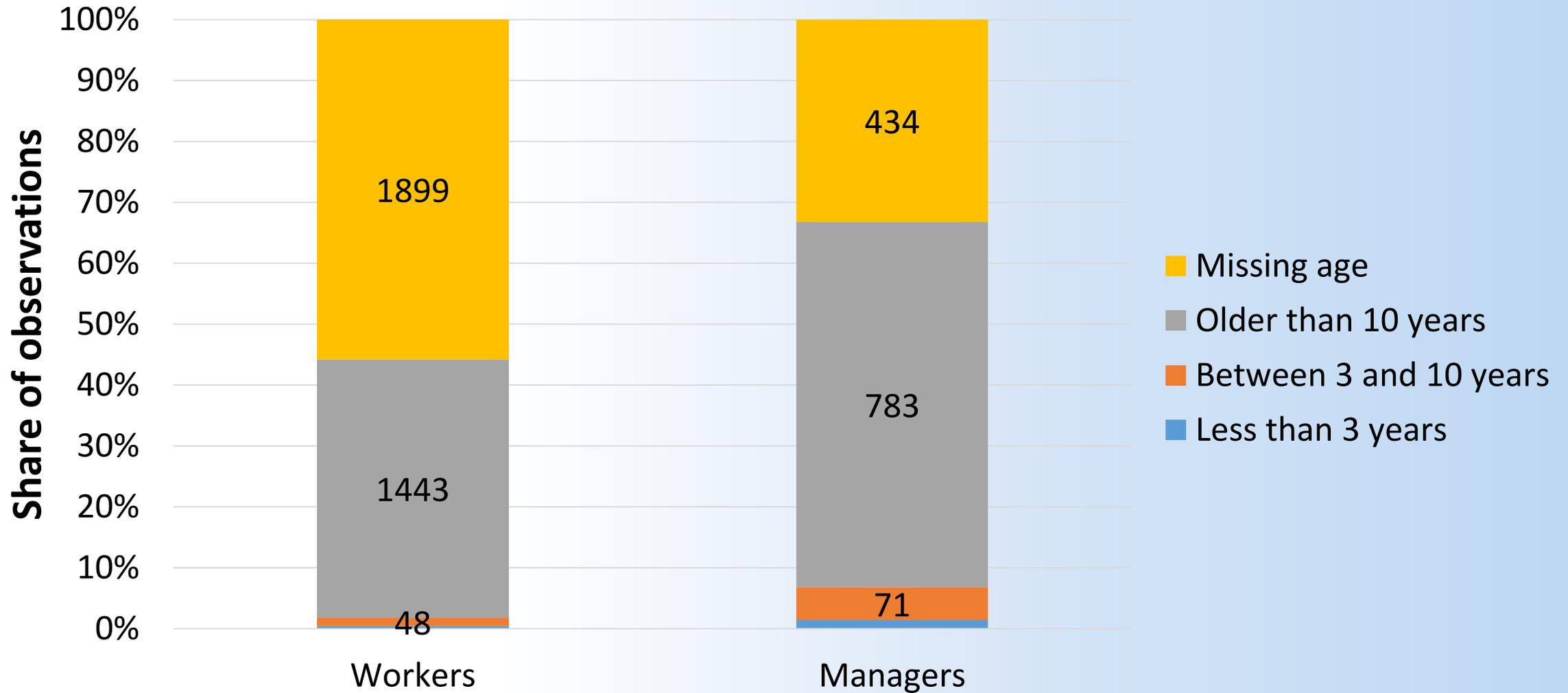
Responses from workers and managers by size





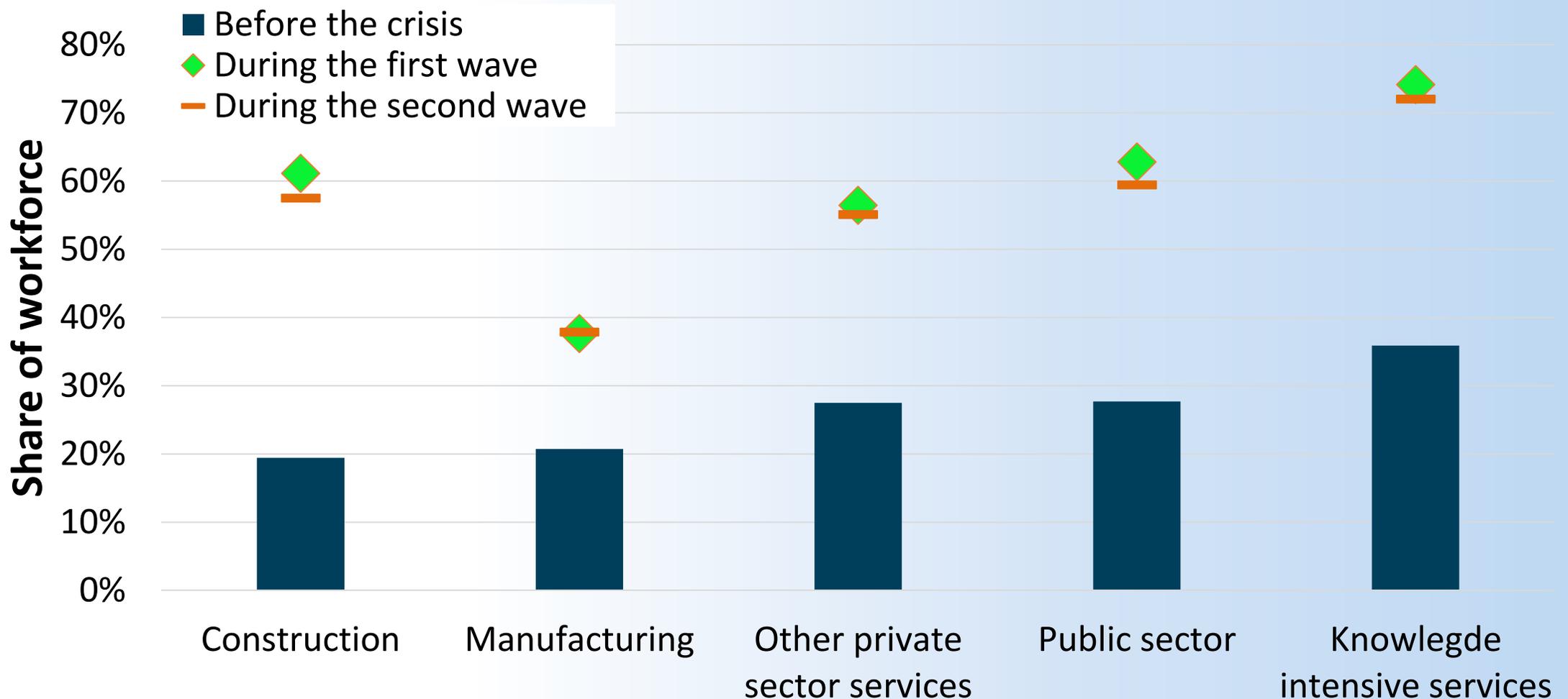
Results

Responses from workers and managers by age



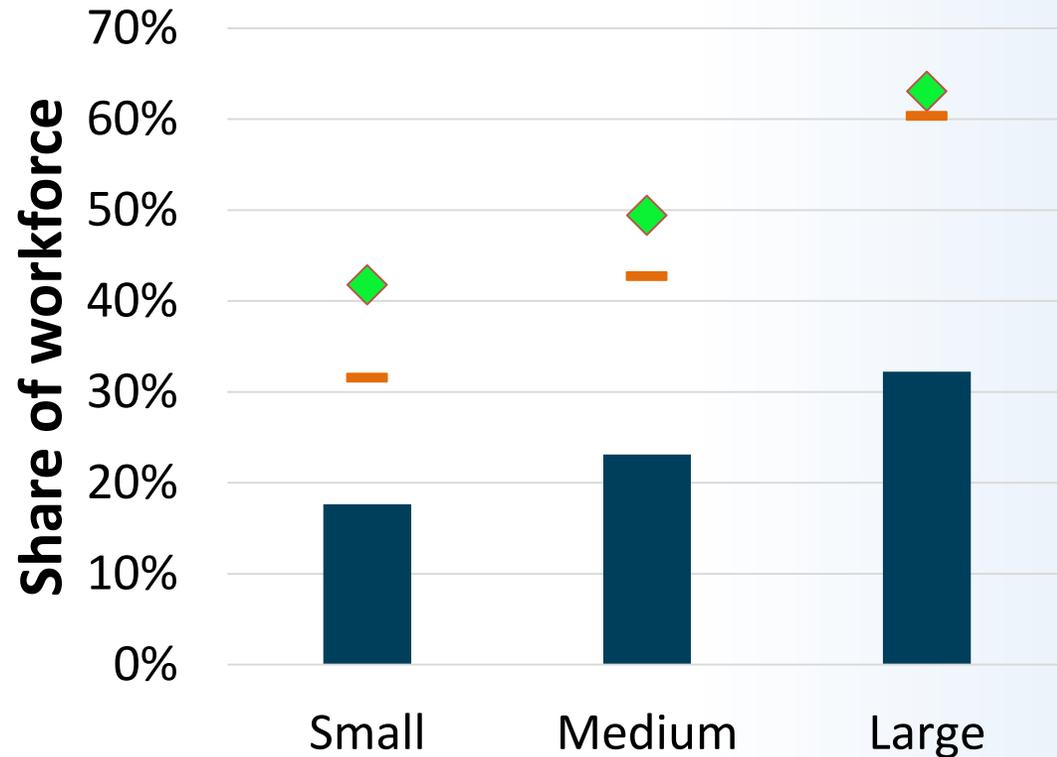


Large increases in regular telework during the initial wave of COVID-19, by sector (filtered and mean regressed)

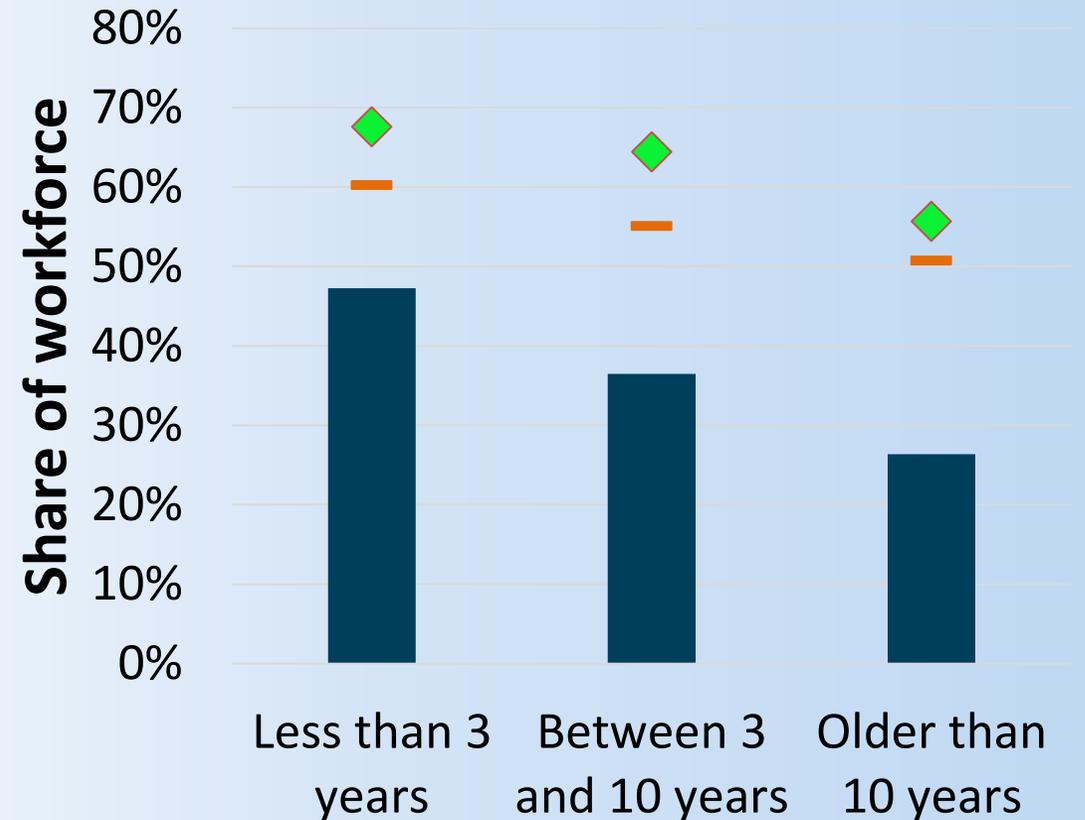




Adoption rate by firm size and age Remove and cite en passant



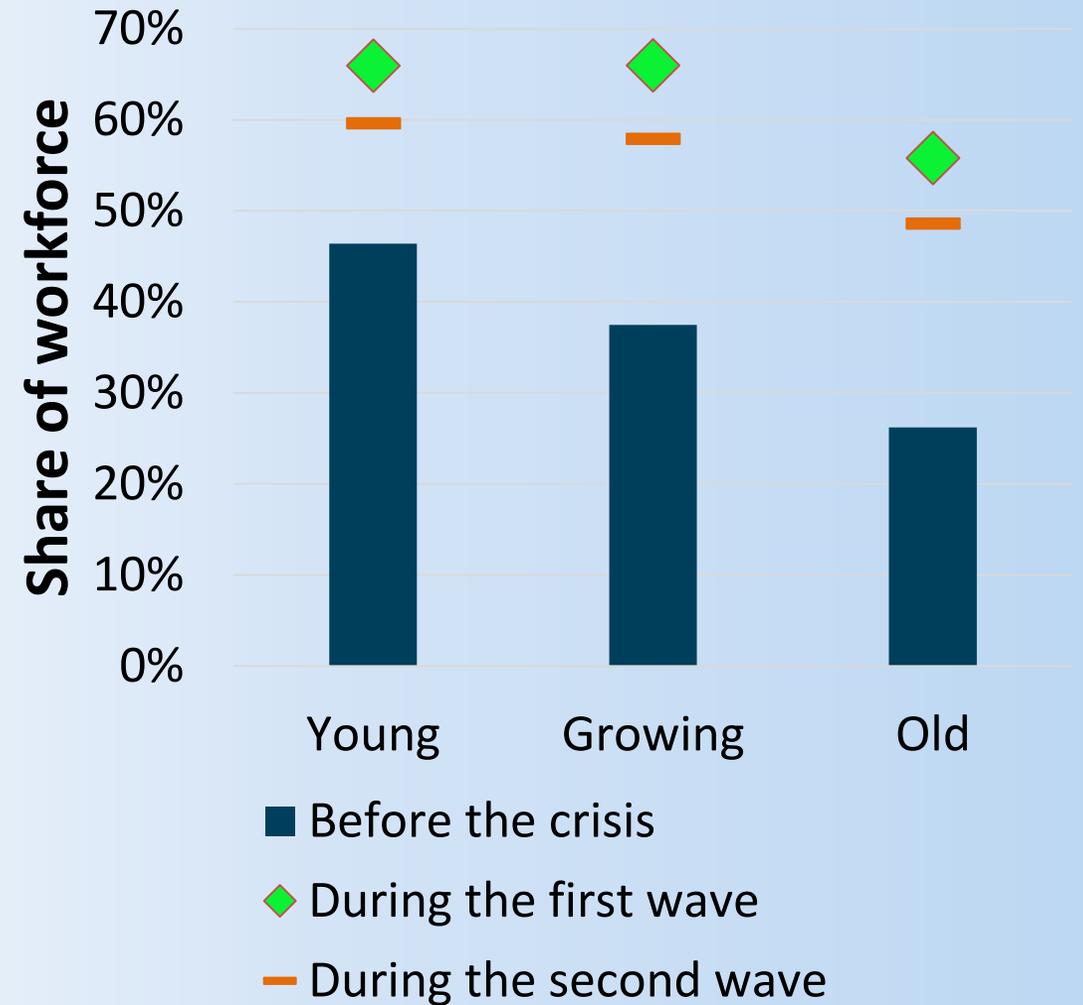
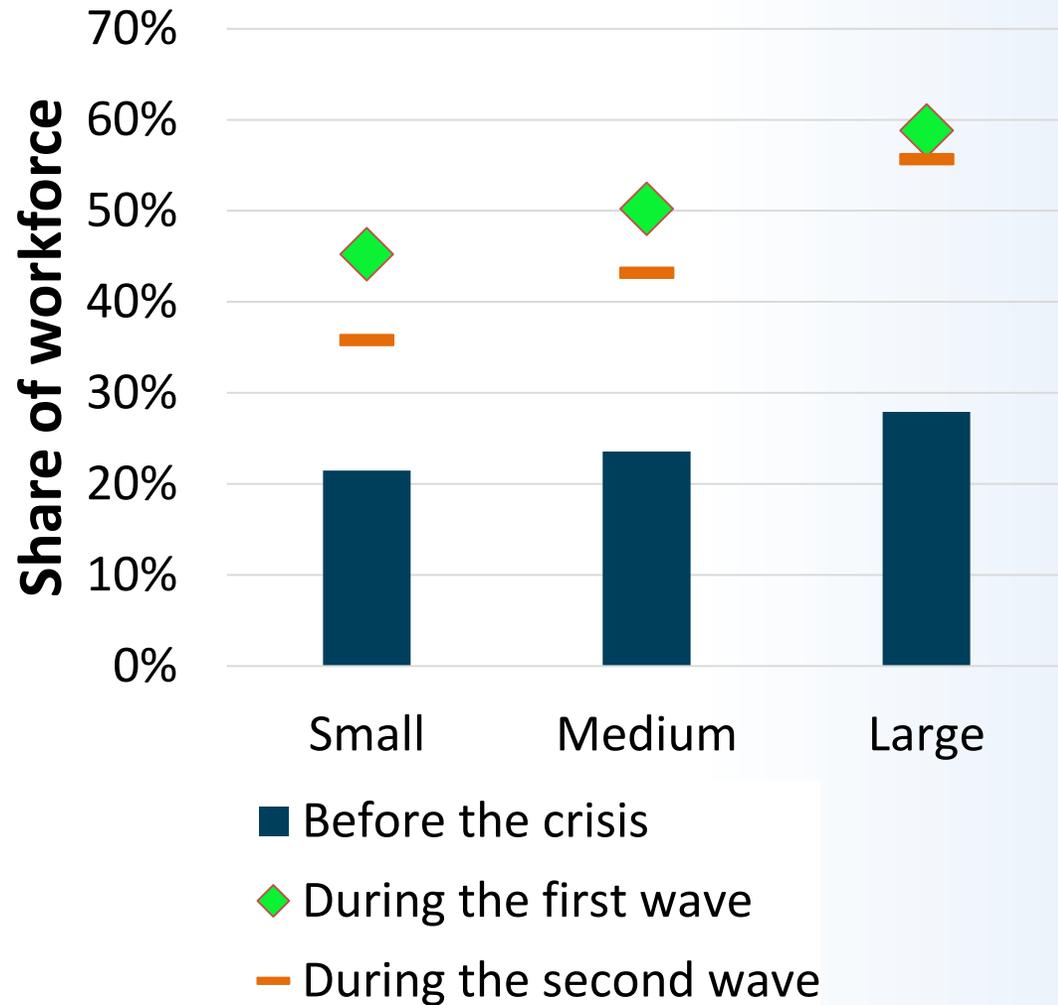
- Before the crisis
- ◆ During the first wave
- During the second wave



- Before the crisis
- ◆ During the first wave
- During the second wave



Adoption rate by firm size and age (filtered and mean regressed)





What **adaptive measures** likely helped better firm performance according to **managers**?

ManagerAssessment_{it}

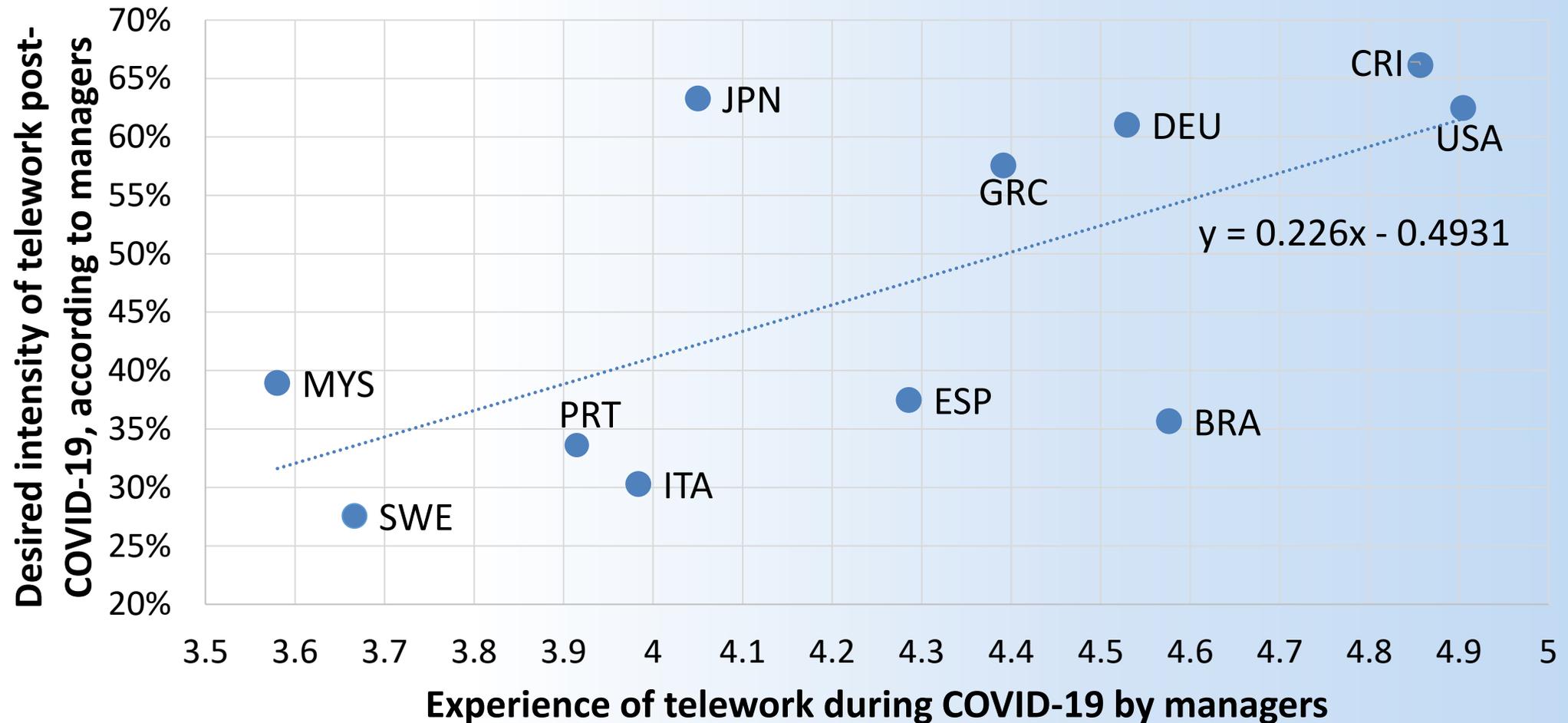
$$= \sum_j \beta_{1j} \text{AdaptiveMeasures}_{ijt} + \beta_2 \text{RegularTW}_{it-1} + \text{SME}_{it} + D_c + D_s$$

- Organising online meetings
- Supporting purchase of IT and other equipment
- Training of managers and workers
- Refurbishing office space

We found this β_2 coefficient positive and highly significant for managers

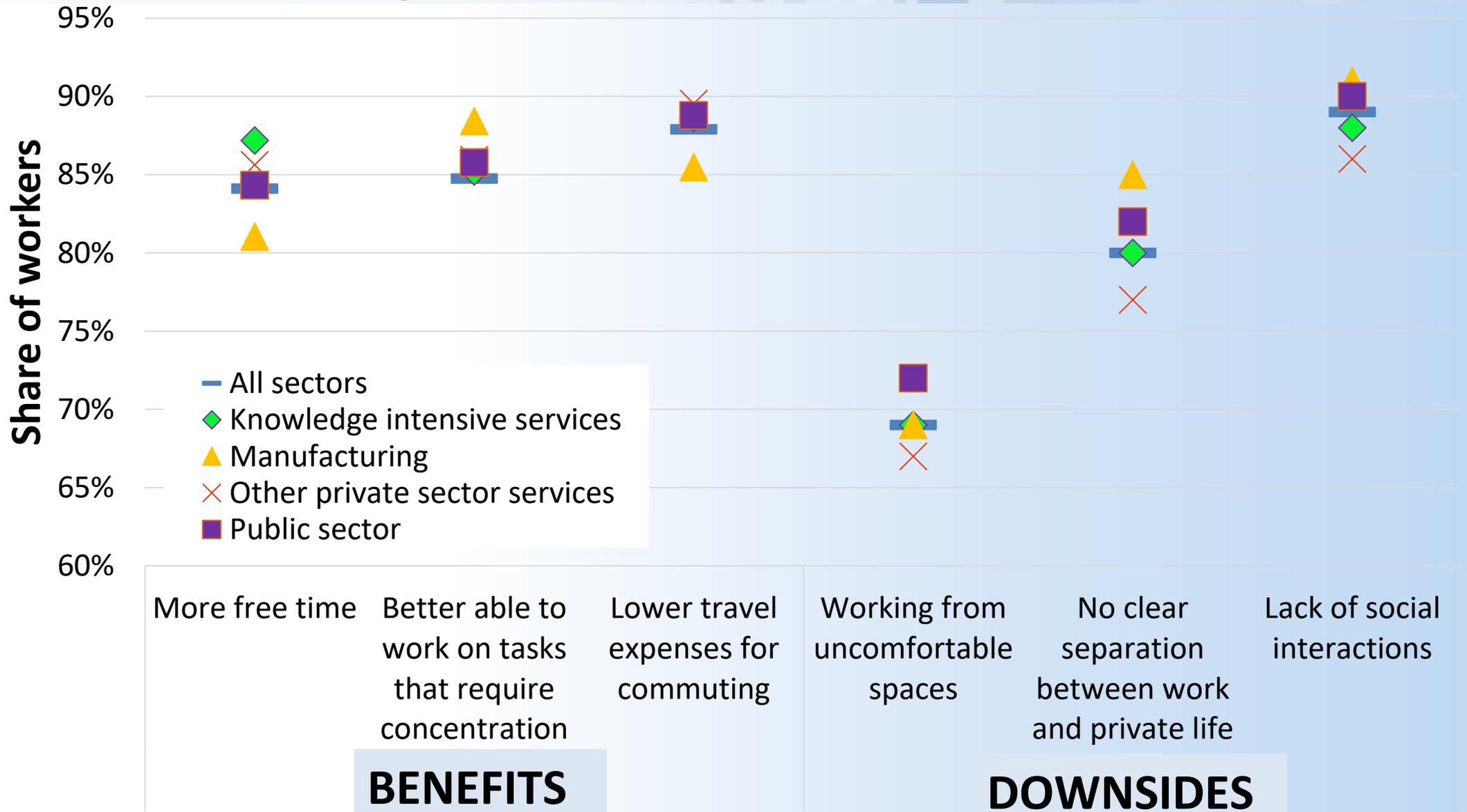


Countries with a **positive experience** during the pandemic are more **likely to desire higher intensity of telework post-COVID-19**



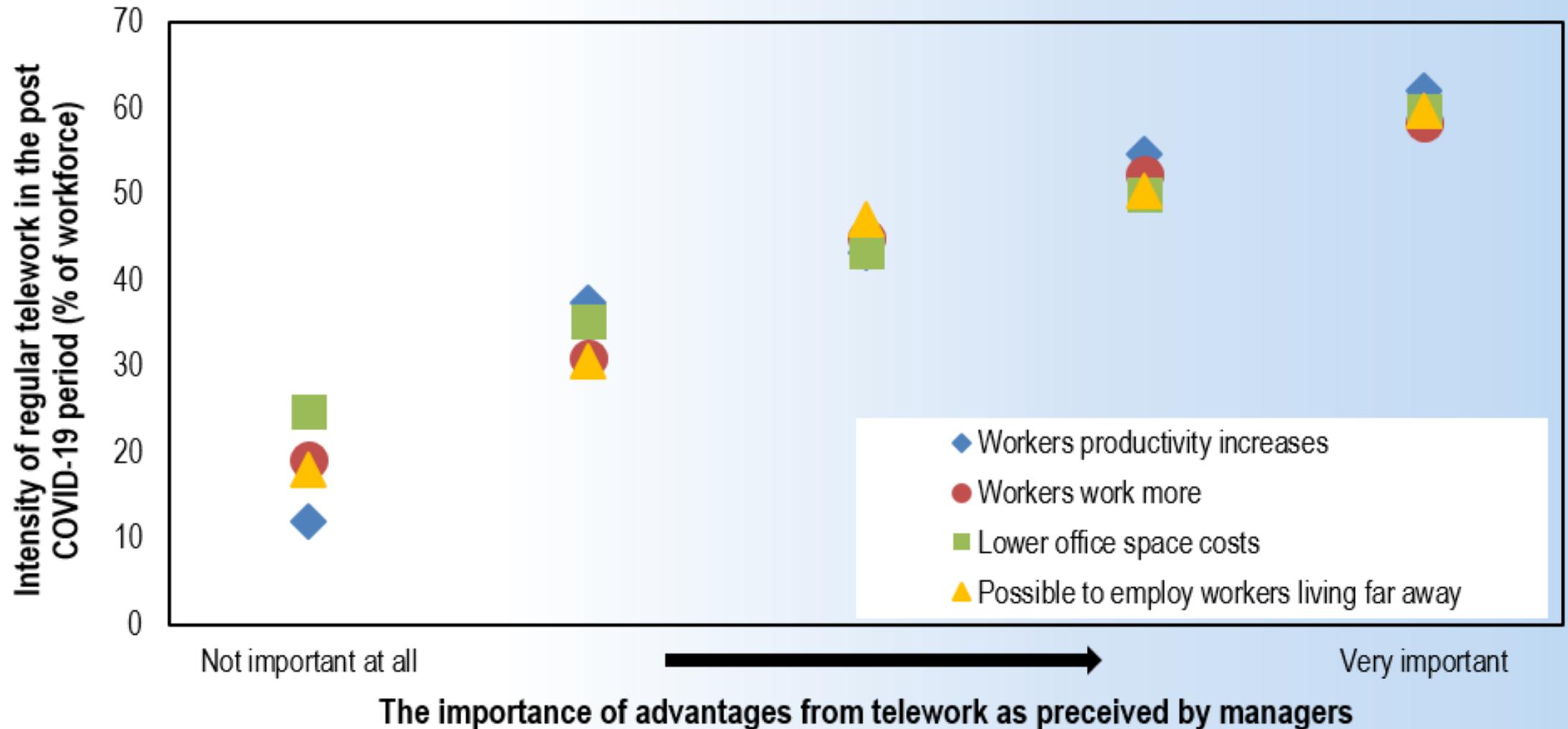


Workers find important advantages as well as disadvantages



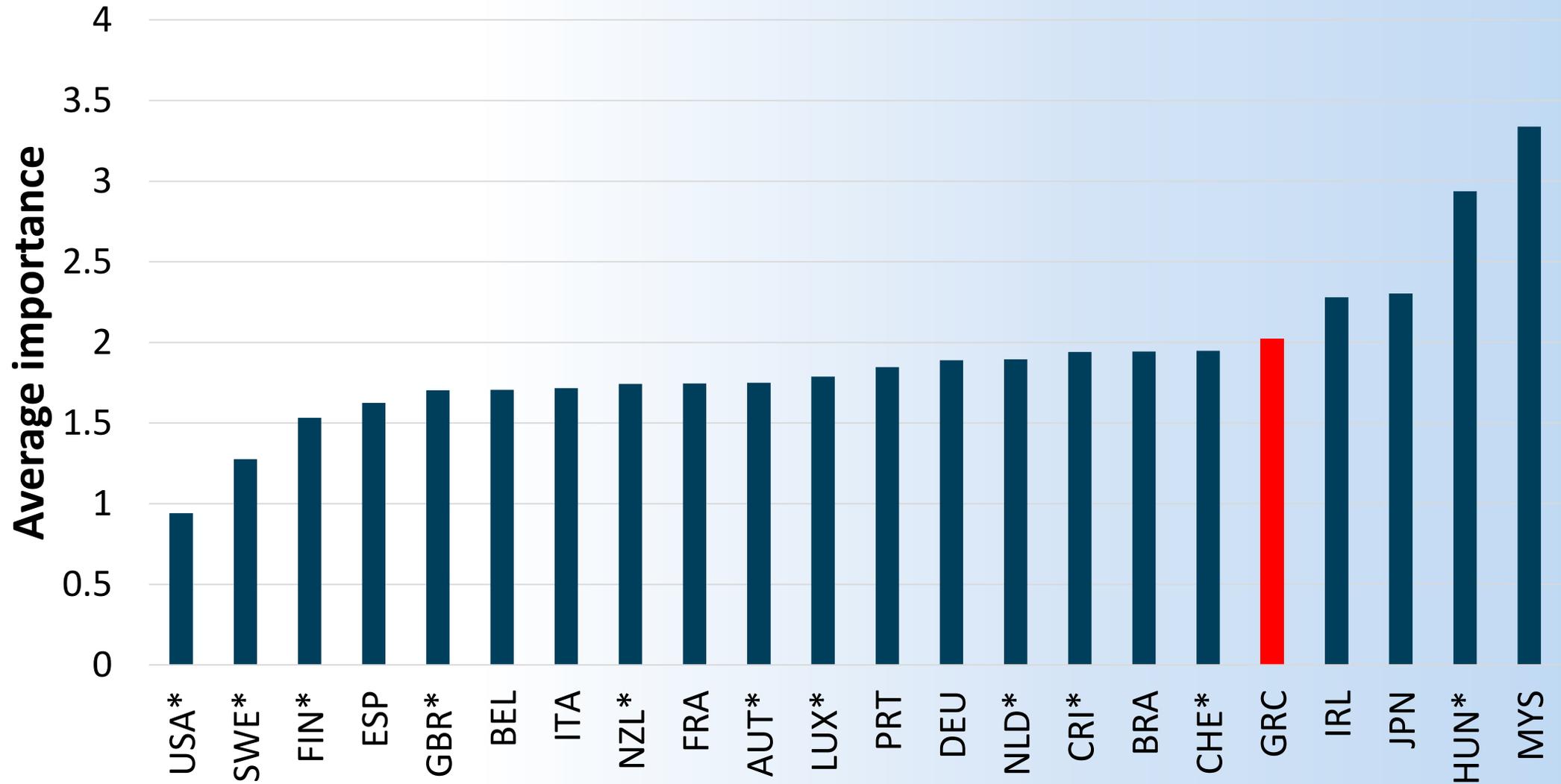


Perceived advantages of telework will contribute to higher adoption rate in the future





ICT infrastructure preventing more telework, to varying degrees by country APPENDIX



* Countries with less than 50 respondents



Policies to raise the gains from telework

Example policies to “enable, empower and protect”

Enable

Infrastructure: ICT, childcare

Culture: Corporate culture, digital public services

Empower

Skills: Online training, lifelong learning

Organisation: Management training

Protect

Rights: Right to disconnect

Regulation: Health insurance, safety regulation