

# Tapping Business and Household Surveys to Sharpen Our View of Work from Home

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Any opinions and conclusions expressed herein are those of the authors and do not represent the views of the U.S. Census Bureau. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product (DMS) number: MOPS (P- 7512395): Disclosure Review Board (DRB) approval number : CBDRB-FY24-CES022-004; BTOS (P-7529868): CBDRB-FY23-0478, CBDRB-FY24-0162, CBDRB-FY24-0225, CBDRB-FY25-ESMD010-001; BTOS Supplement (P-7529868) CBDRB-FY25-0117).

# Two Perspectives on Work from Home (WFH)

Government agencies collect data through both household surveys and business surveys providing different perspectives on work from home.

## Demographic Surveys

- American Community Survey (ACS)
- Household Pulse Survey (HPS)
- *Current Population Survey (CPS)*

### Current Work:

Listening tour and research to improve the ACS WFH question.

## Business Surveys

- Annual Business Survey (ABS)
- Small Business Pulse Survey (SBPS)
- *Business Response Survey (BRS)*

### Current Work:

Newly released supplement from the Business Trends and Outlook Survey (BTOS) to provide the business perspective on Work from Home.

# This paper

- The goal of this paper is to create a more accurate and complete picture of WFH prevalence/measurement by using this dual perspective.
  - To delineate enhancements and improvements to Census surveys.
- Focus the attention on the *new and recently collected* Business Trends and Outlook Survey (BTOS) – WFH supplement
  - 11 WFH questions: Developed with Census and academic advisors
  - Headline results (public data)
  - What can we learn from this survey?

# Filling an Important Data Gap in WFH publication

Demographic Surveys				
Year (reference)	ACS	CPS	HPS	SWAA
2019	X			
2020				X
2021	X			X
2022	X	X	X	X
2023	X	X	X	X
2024		X	X	X
2025*		X		X

Business Surveys			
ABS	BRS	BTOS	SBPS
X			
X			X
X	X		X
X	X		



American Community Survey (ACS); Current Population Survey (CPS), Household Pulse Survey (HPS)  
 Annual Business Survey (ABS), Business Response Survey (BRS), Small Business Pulse Survey (SBPS)

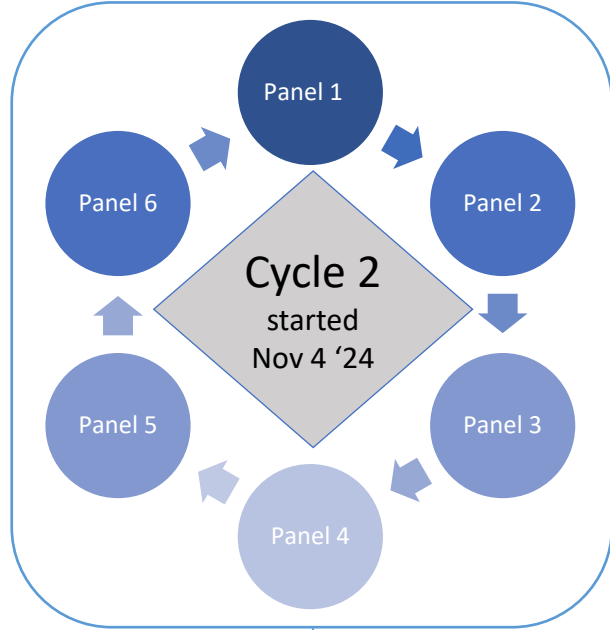
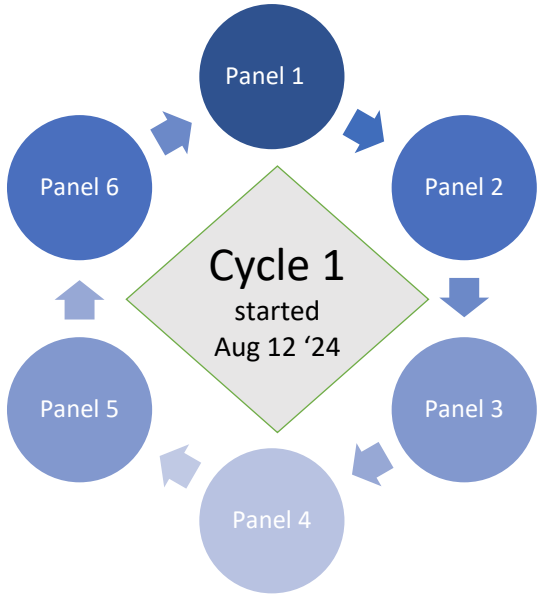
# BTOS Methodology, Collection, and Publication

## Methodology

- Target population for BTOS is all nonfarm employer businesses with receipts of \$1,000 or more in the United States.
- New sample of 1.2M businesses is drawn annually; Sample is split into six bi-weekly panels of 200K; Sampled companies are surveyed once every twelve weeks for a year (4-5 times within the year)
- Survey weights are adjusted for survey non-response and are used to make sample-based estimates representative of the number of businesses in the target population.

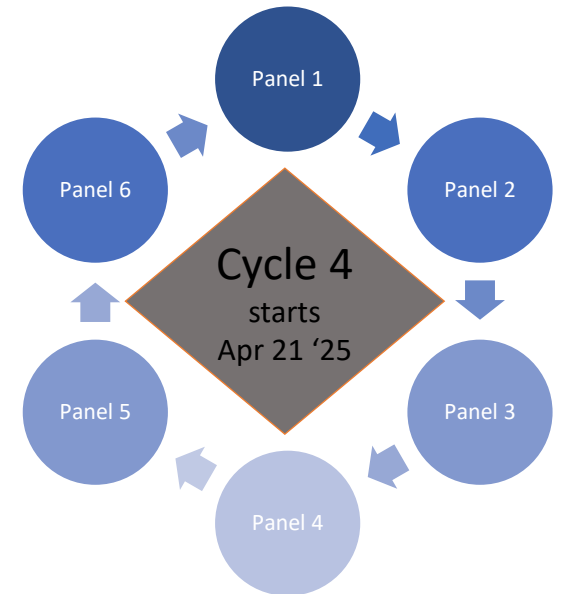
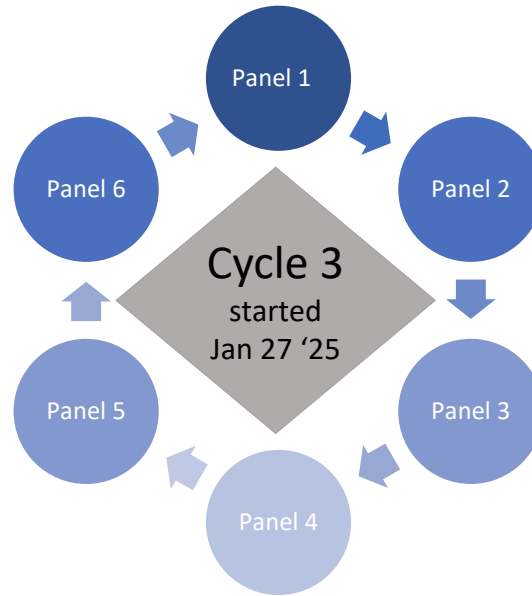
## Publication

- Data products: national, sector (NAICS2), state, Top 25 MSA, subsector (NAICS3), employment size class
- Bi-weekly on Thursdays; on the fourth business day after collection closes



(Supplemental WFH questions fielded)

- 6 bi-weekly panels = cycle
- Cycle = 1.2M sample/ 6 bi-weekly panels
- Same companies in panel, 1, panel 2, etc.
- Survey year includes 4 cycles
- Cycle 2 received WFH supplement



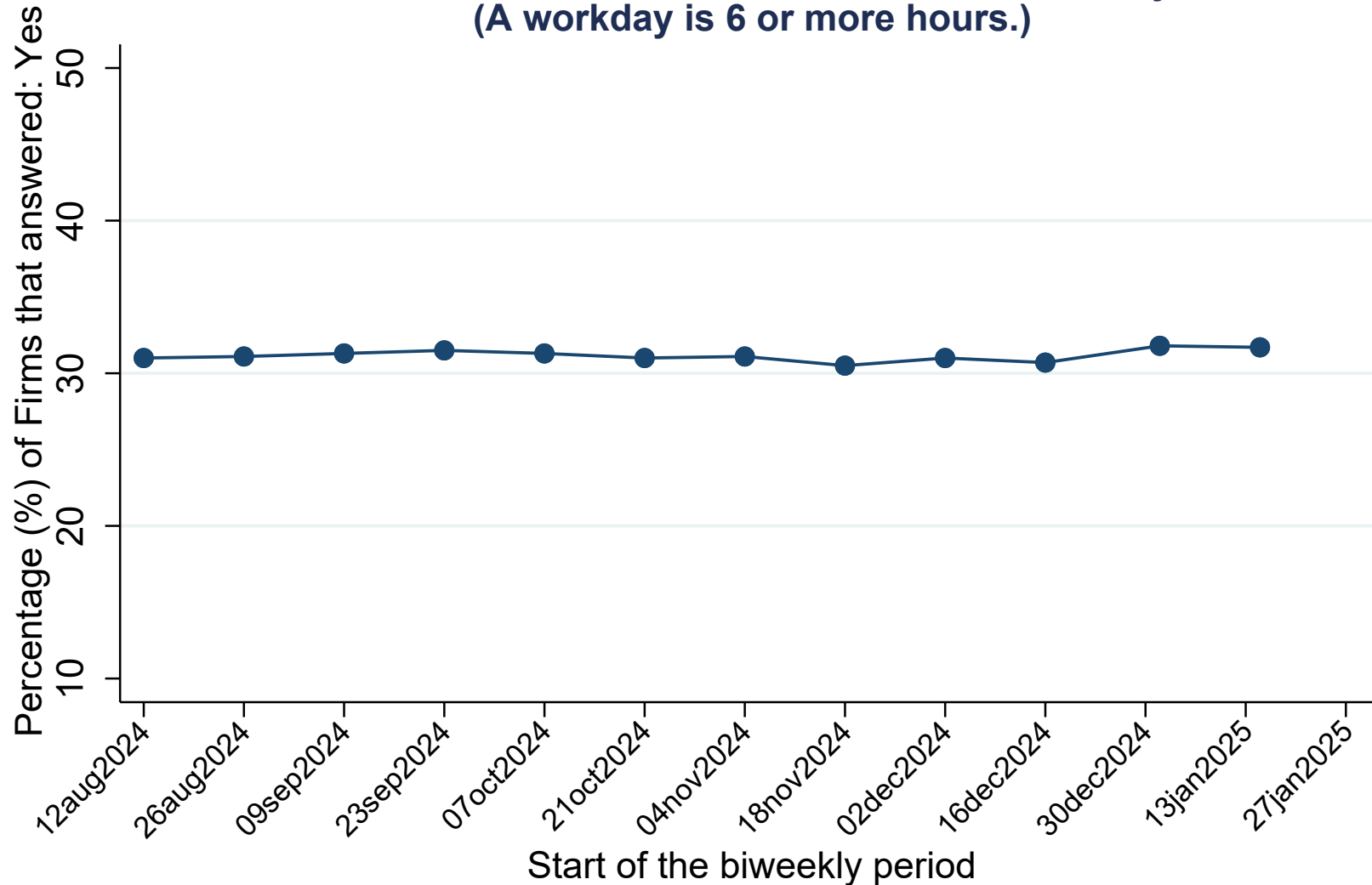
# BTOS 2024 - 2025 Sample Year

# Design of BTOS Work From Home Questions

- Design built on existing surveys and experiences (government and private)
- Underwent cognitive testing; OMB approval
- **1 Q: Core question (1 year: Aug 2024 – July 2025)**
  - Extensive margin: *“Between MMM DD – MMM DD, did this business have any paid employees who worked from home the majority of at least one workday?”*
- **10 Q: Supplement questions (3 months: Nov 2024 - Jan 2025)**
  - Intensive margin: % of employees WFH 1,2,3,4,5 days+.
  - Limiting factors
  - Management practices: monitoring WFH and in-person employees.
  - Productivity

# Trend of Extensive Margin

In the last two weeks, did this business have any paid employees who worked from home for at least one workday?  
(A workday is 6 or more hours.)



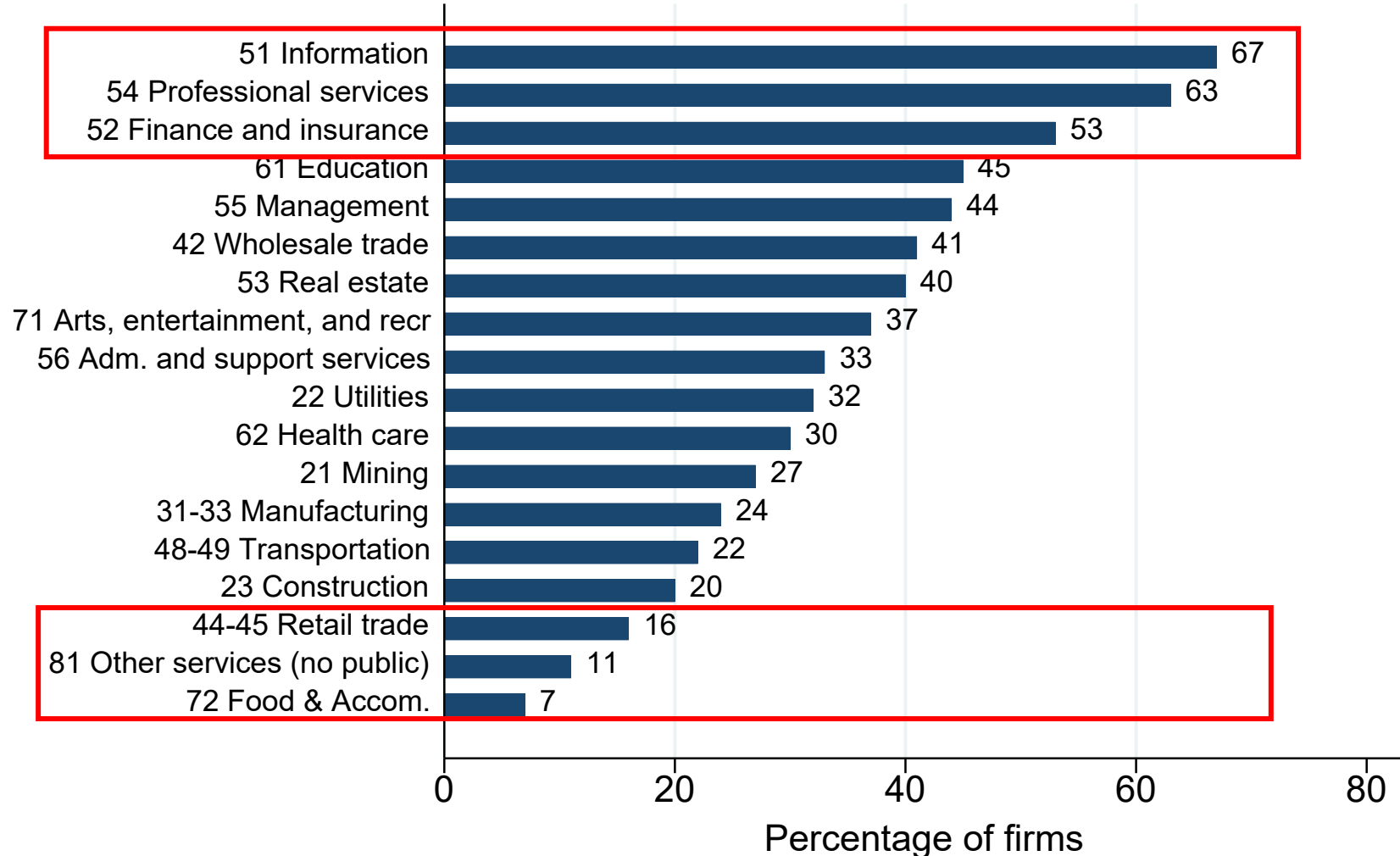
SWAA/CHPS  
(worker/hh-  
level) finds very  
similar pattern  
for the same  
time period.



# Sectoral for Extensive Margin

In the last two weeks, did this business have any paid WFH employees  
% of firms that answered Yes

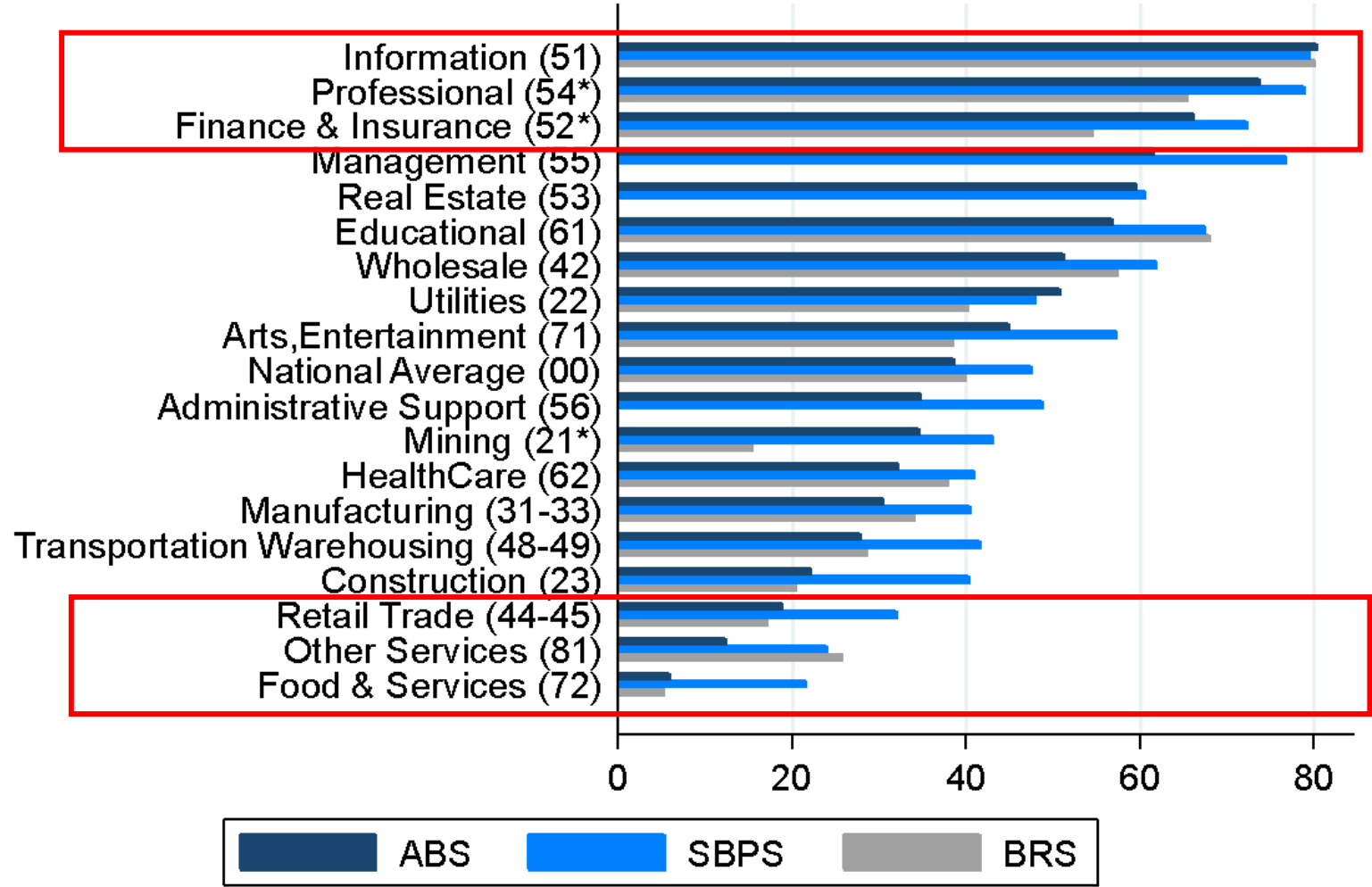
BTOS - WFH supplement (Pooled 08/12/2024-01/26/2025)



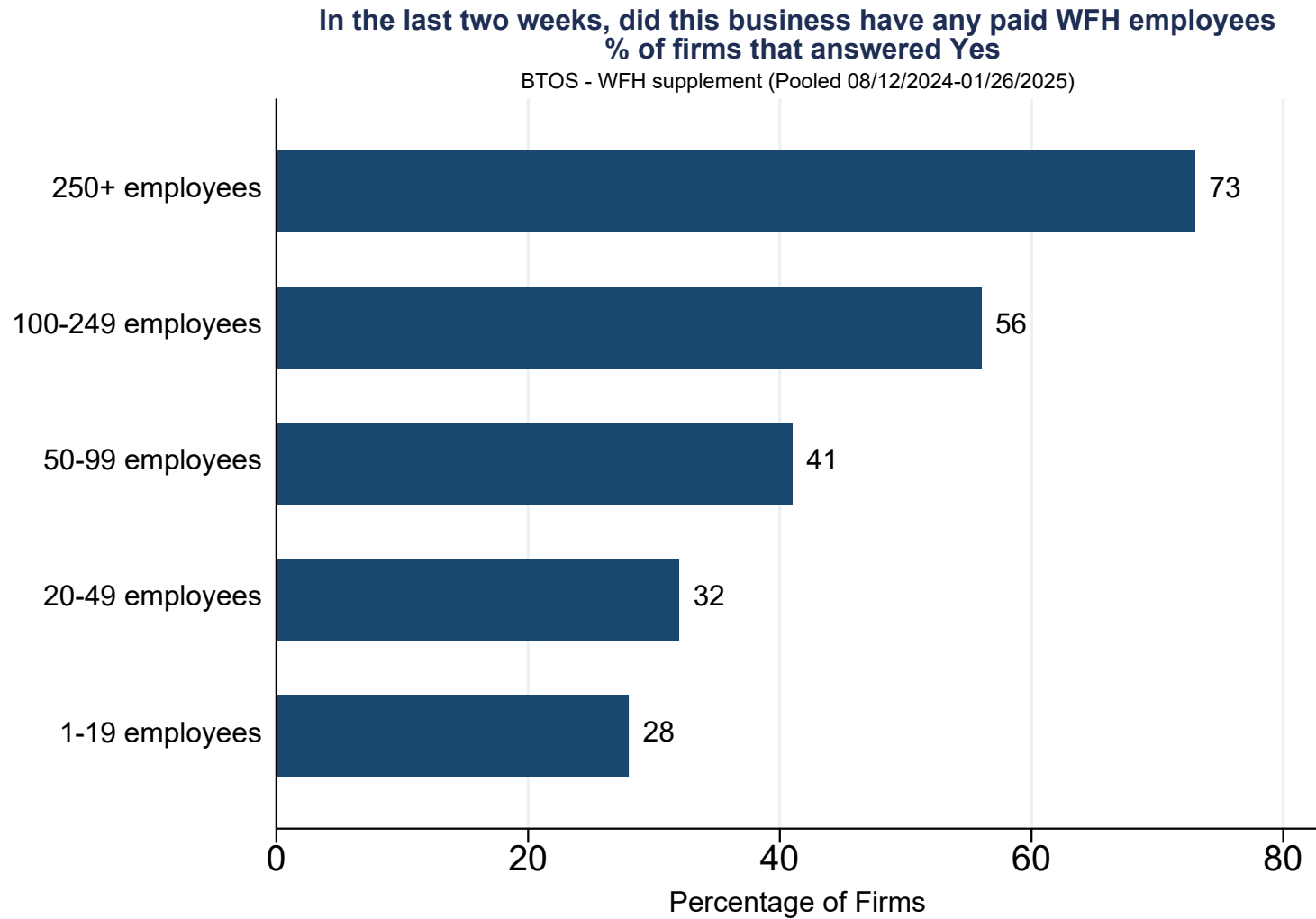
\*WFH employees: employees who worked from home for at least one workday?

# Sectoral for Extensive Margin (2021)

Percentage of Firms that offer WFH Business Surveys (2021)

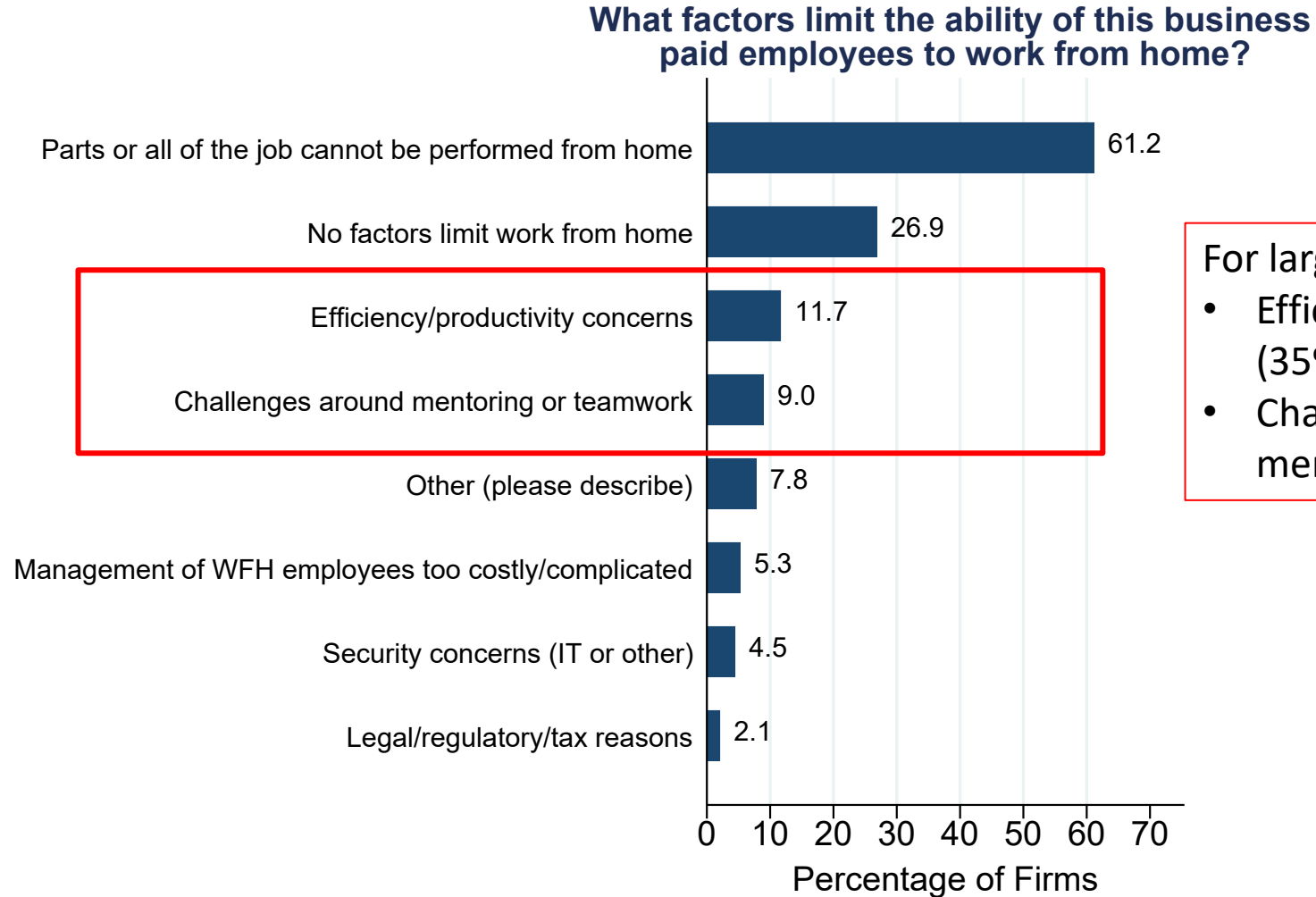


# Firm Size for Extensive Margin



\*WFH employees: employees who worked from home for at least one workday?

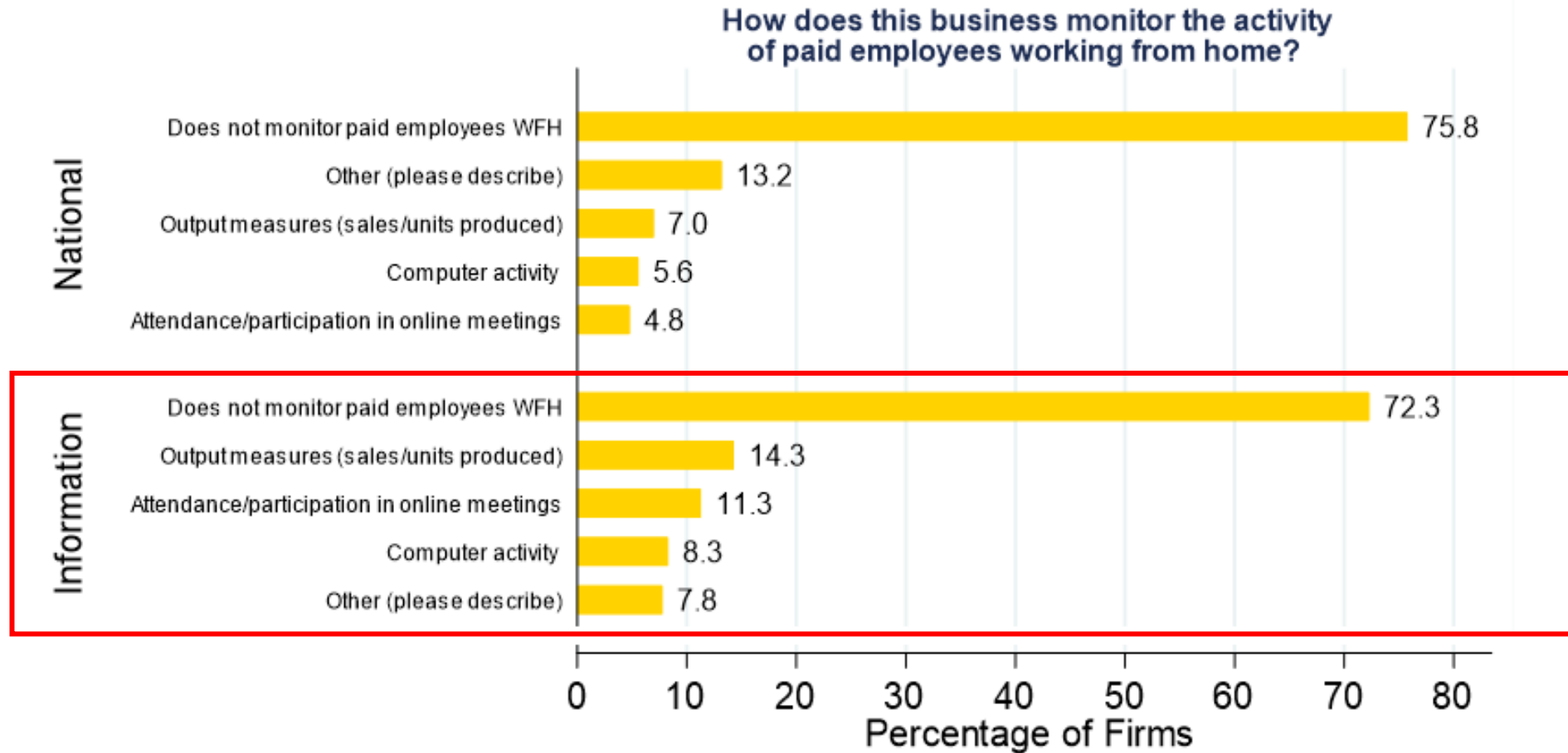
# Limiting Factors



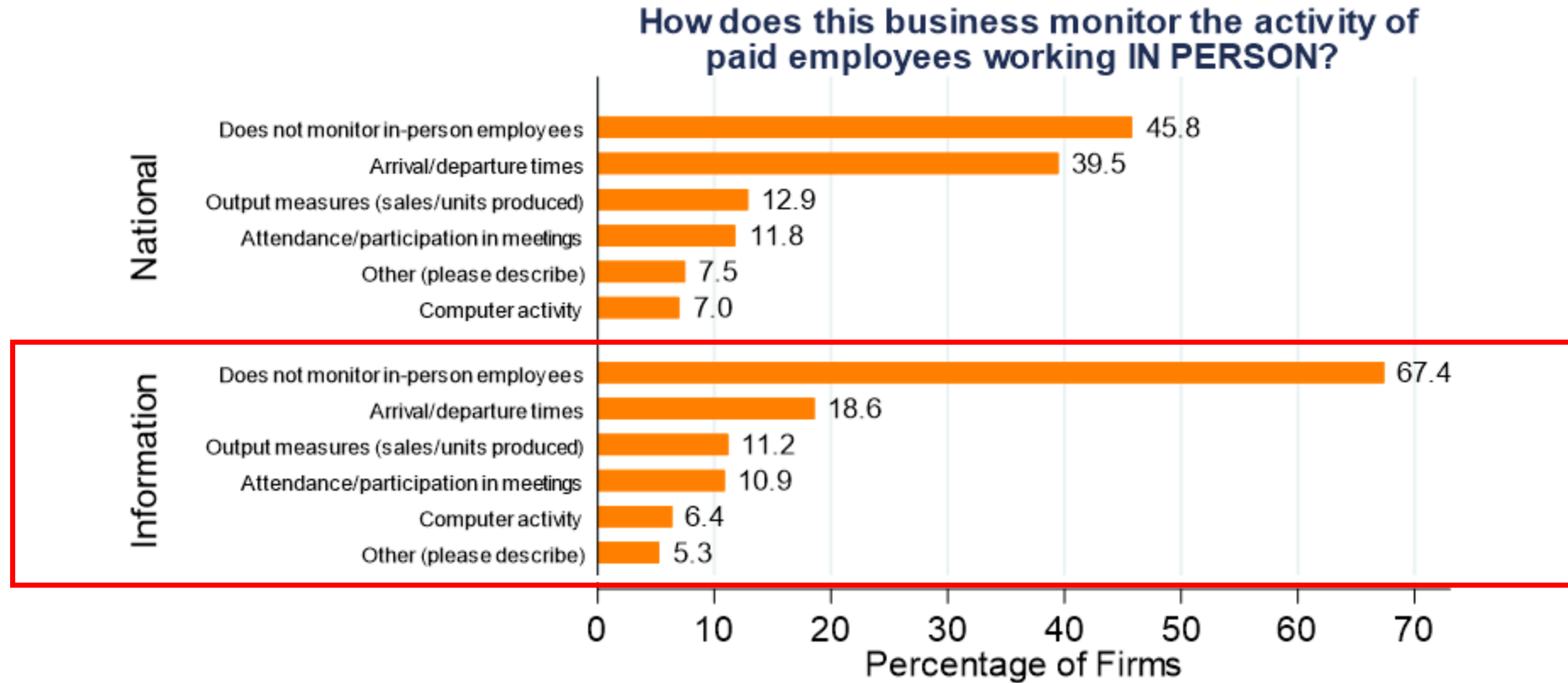
For large firms (250+ firms):

- Efficiency/Productivity Concerns (35%)
- Challenges around mentoring/teamwork (32%)

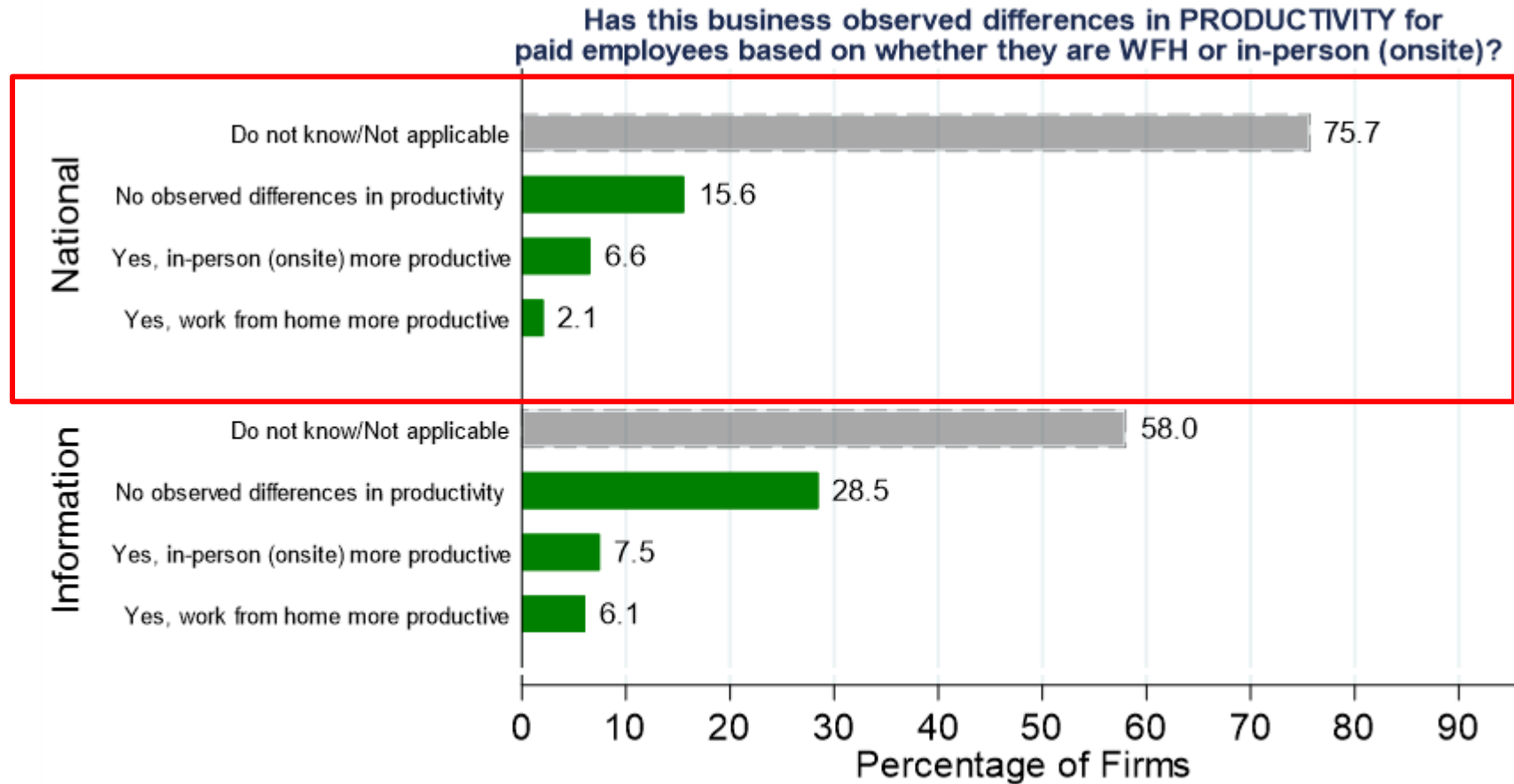
# Monitoring – tracking activity at home



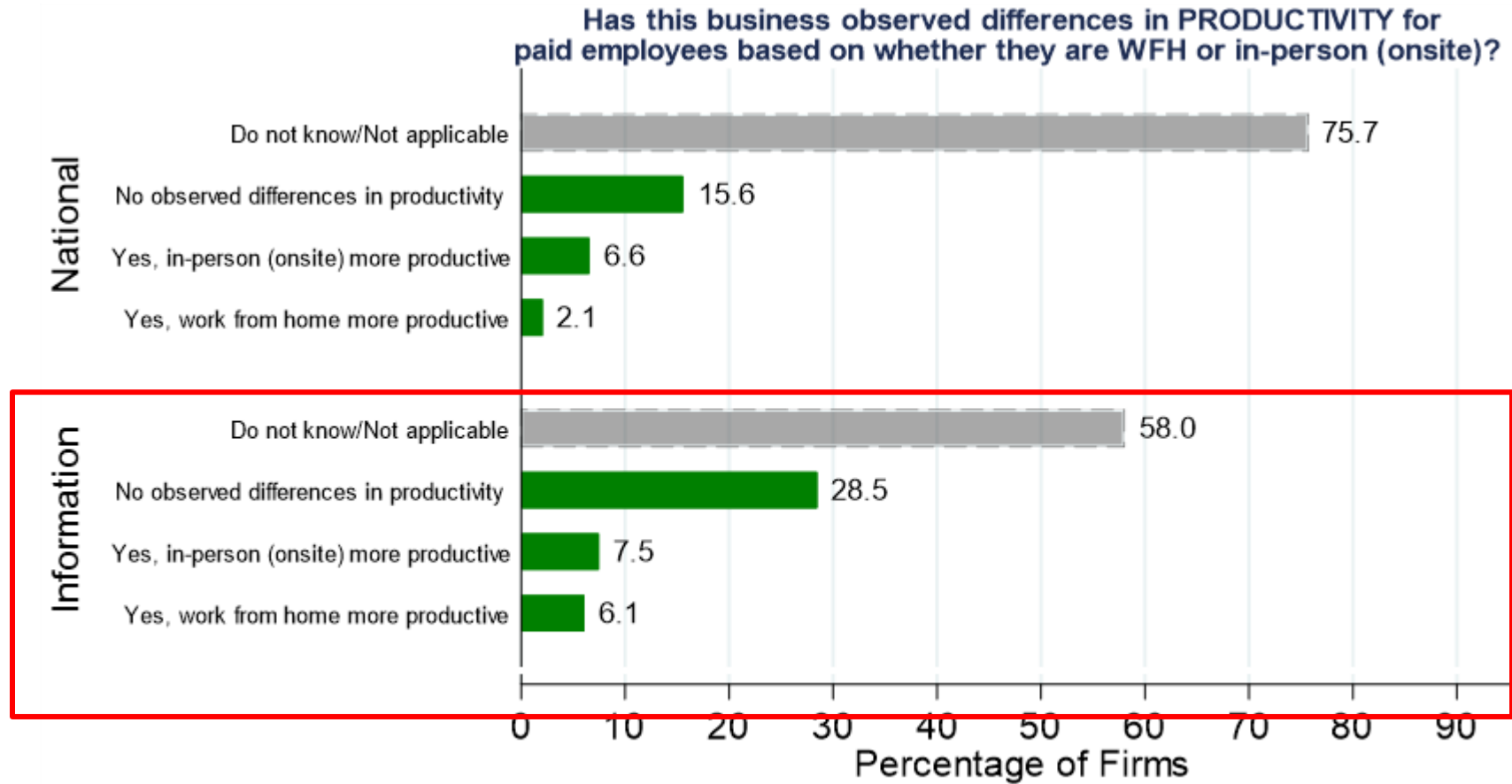
# Monitoring – tracking activity at onsite



# Productivity Differences



# Productivity Differences





# Future Work

## Business Side

- Empirical exercises using micro data will enable us to control for different firm characteristics (e.g. hybrid, firm productivity, age).
- Explore write-in information in “other” responses (limiting factors/monitoring).
- Intensive margin questions (% employees that WFH, 1,2,3,4,5+ days) using the published data.
- Employment-weighted results.

## Household Side

- Continue to develop ACS questions.
- Compare to the CPS supplement release of telework.