



Four-day week

1. Historical perspective
2. A management practice
3. A macroeconomic policy

Prof. Pedro Gomes

Celebrating 100 years of the Weekend



The 5-Day Week in the Ford Plants

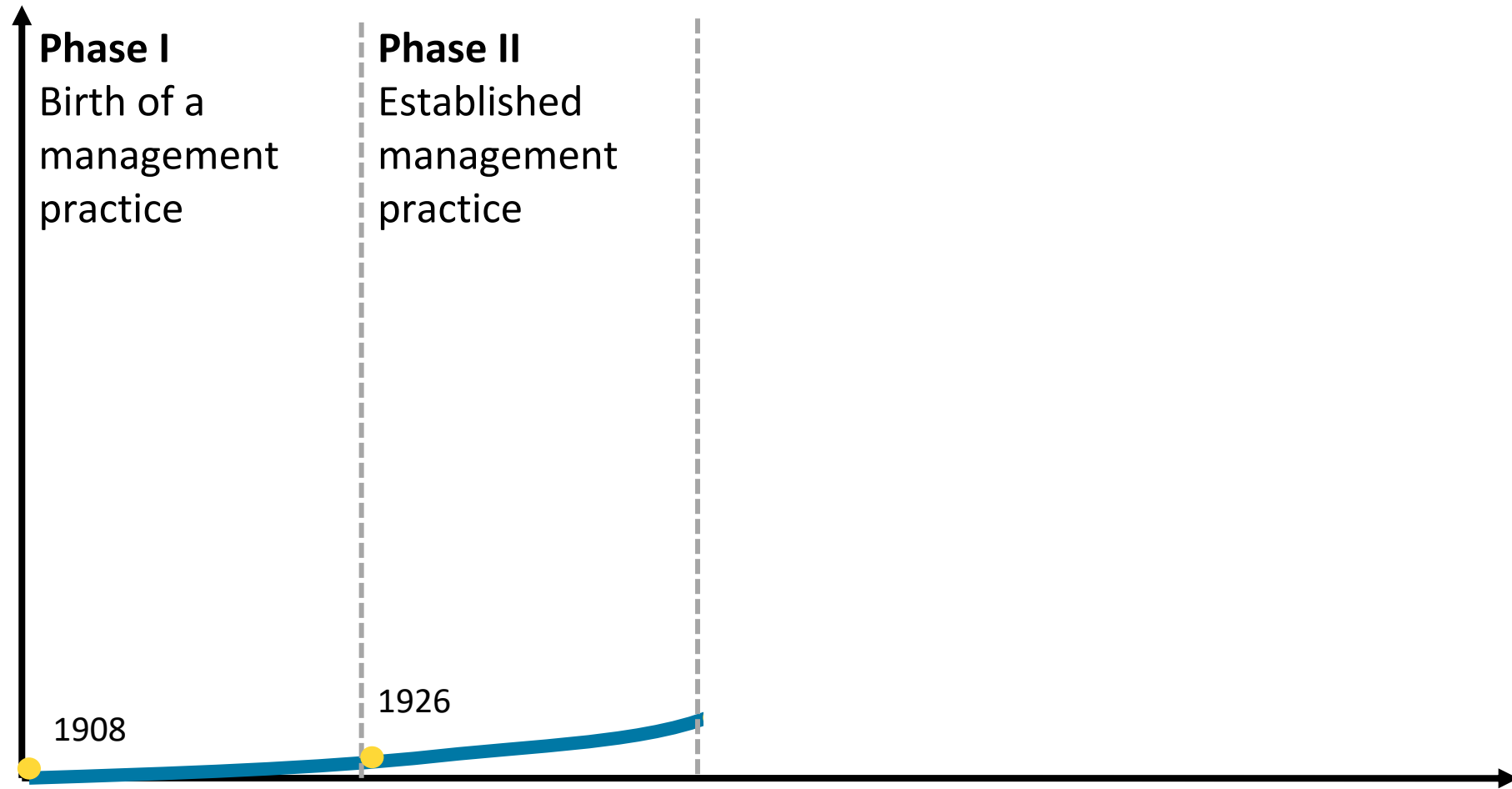
MR. HENRY FORD'S statement of his reasons for instituting the 5-day week in the various Ford plants is set forth as follows in an authorized interview by Mr. Samuel Crowthers appearing in the World's Work for October, 1926:

"We have," Mr. Ford said, "decided upon and at once put into effect through all the branches of our industries the 5-day week. Hereafter there will be no more work with us on Saturdays and Sundays. These will be free days, but the men, according to merit, will receive the same pay equivalent as for a full 6-day week. A day will continue to be 8 hours, with no overtime."

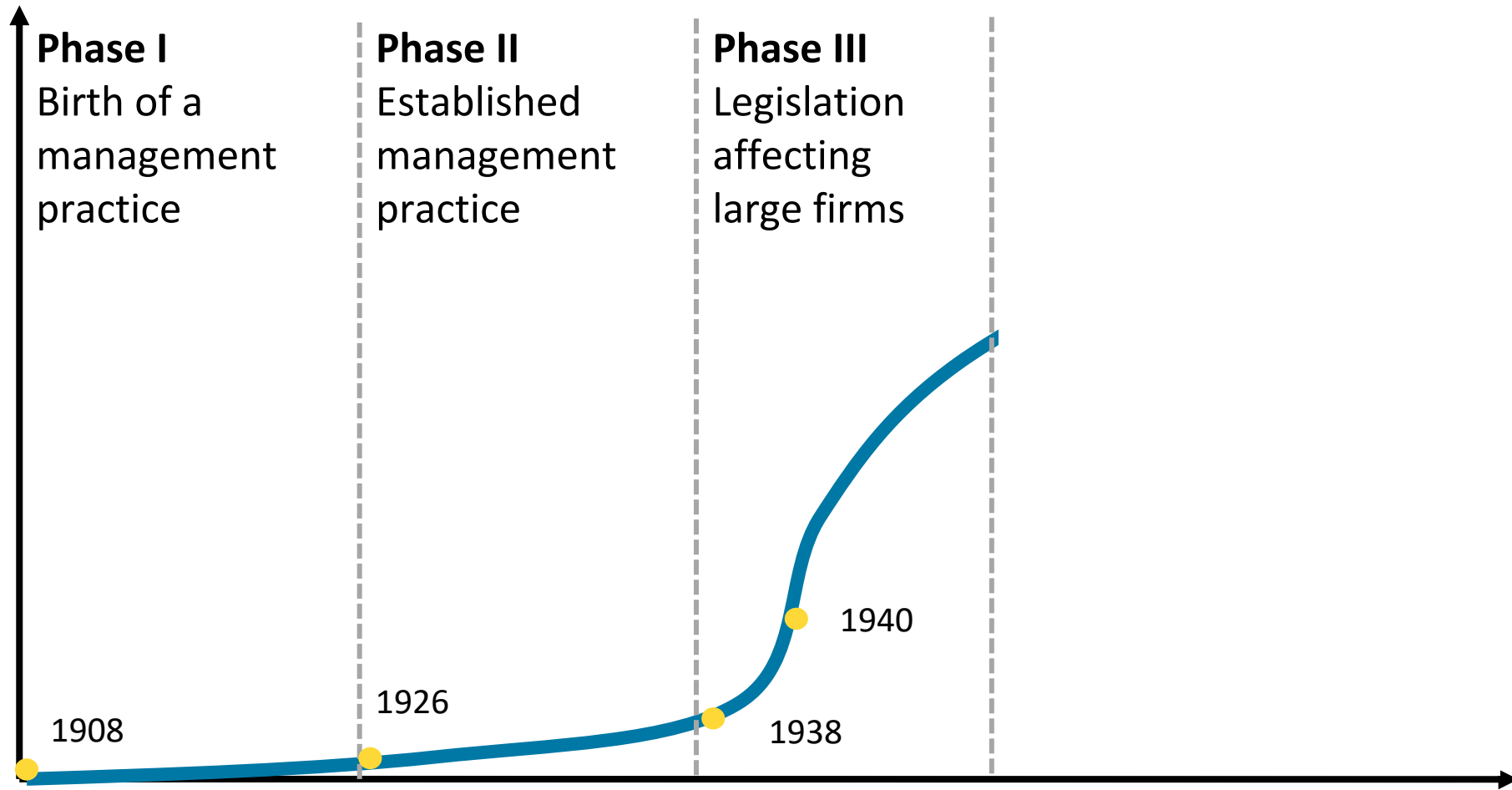
The road from 6 to 5 days in the US



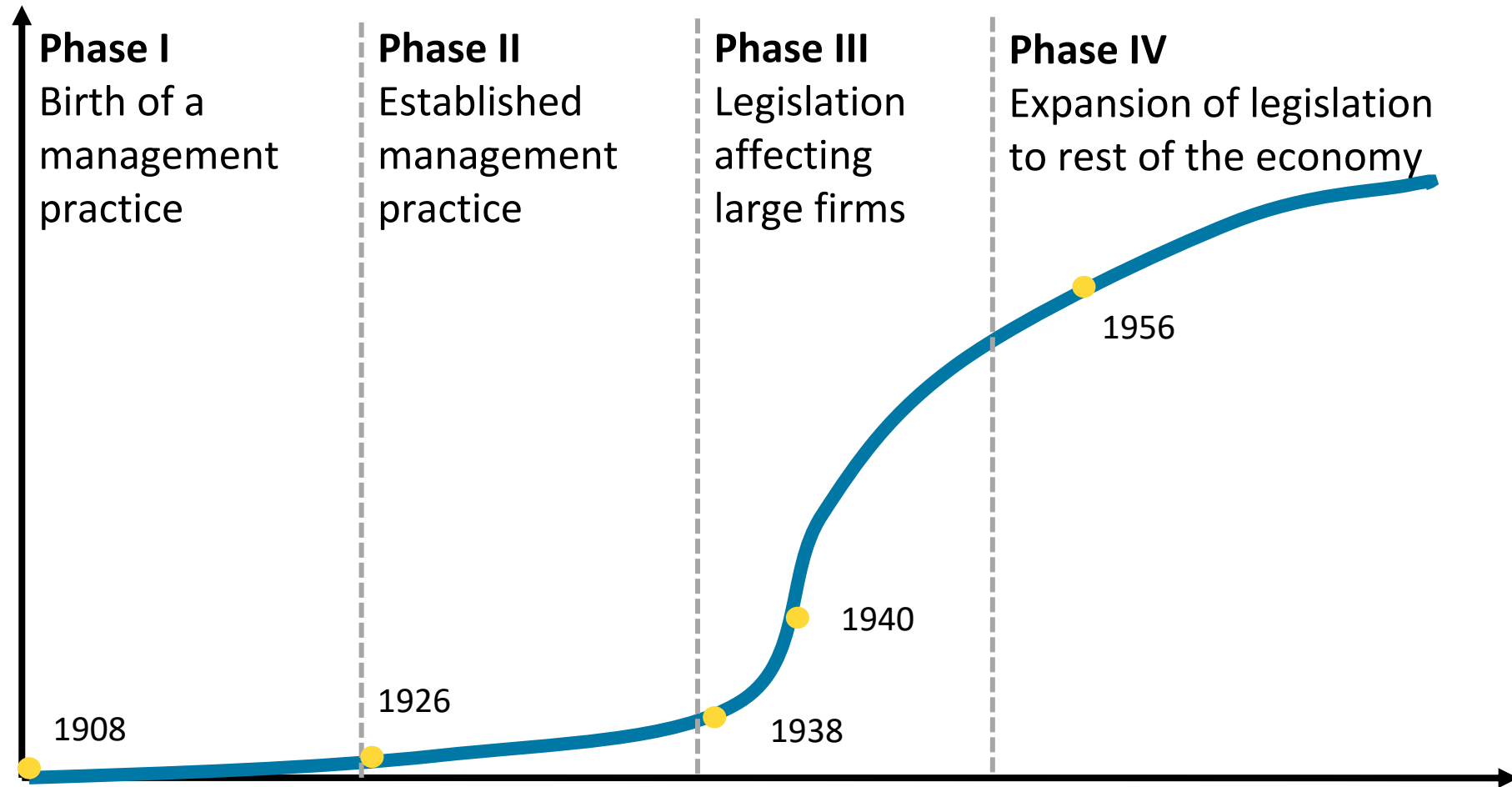
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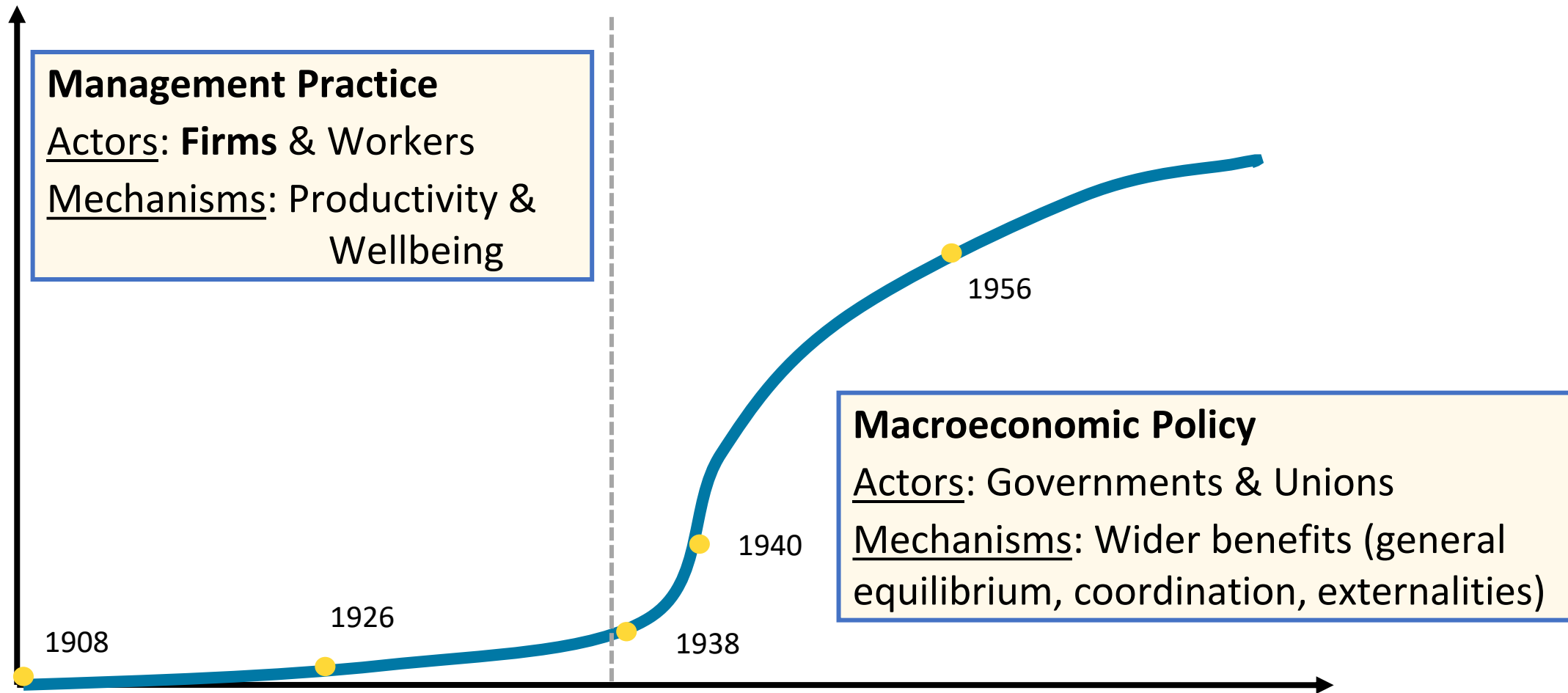
The road from 6 to 5 days in the US



The road from 6 to 5 days in the US




The road from 6 to 5 days in the US



The first visionary of the four-day week

The New York Times

NIXON FORESEES 4-DAY WORK WEEK; Says G.O.P. Policies Assure Fuller Life for Family-- Scores Stevenson View Three Goals Advanced NIXON FORECASTS 4-DAY WORK WEEK Philosophy of Moderation A. D. A. Replies to Charge

 Share full article



By William M. Blair Special To the New York Times.

Sept. 23, 1956

Four-day week

 The Guardian

'No downside': New Zealand firm adopts four-day week after successful trial

Almost 250 staff at Perpetual Guardian, a company which manages trusts, wills and estate planning, trialled a four-day working week over March...

01/10/2018




 The Telegraph

Lamborghini rolls out four-day week for factory staff

Lamborghini has introduced a four-day working week for factory staff in Italy, who will benefit from reduced hours and higher pay.

06/12/2023



 The Washington Post

A four-day workweek pilot was so successful most firms say they won't go back

Fifteen percent of employees who took part in the world's largest trial of the four-day workweek said no amount of money could sway them to...

21/02/2023

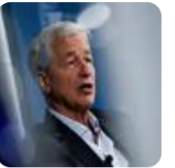


 The Economic Times

Work 3.5 days a week to become a reality soon? JPMorgan Chase CEO Jamie Dimon envisions a future

JPMorgan Chase CEO Jamie Dimon has envisioned a future where working 3.5 days a week and living to 100 years will become a reality soon, thanks...

27/11/2024

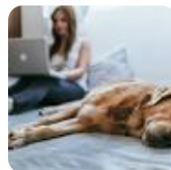


 Worldcrunch

[The Four-Day Work Week, New Experiments Around The World Point To Wider Adoption](#)

More countries recently have passed laws that allow for a four-day workweek to employees seeking greater work-life balance.

04/12/2024



 Fortune

Billionaire Bill Gates says a 2-day work week is coming in just 10 years, thanks to AI replacing humans 'for most things'

Bill Gates is predicting that in just 10 years, humans might just work two days out of the week—and it's all thanks to AI...

27/03/2025



Four-day week: beyond the firm



CNN

Iceland embraced a shorter work week. Here's how it turned out

Iceland's economy is outperforming most European peers after the nationwide introduction of a shorter working week with no loss in pay,...

25/10/2024



The Independent

Four-day working week for council staff leads to improved services, report finds

South Cambridgeshire District Council rolled out a four-day working week for hundreds of staff under a trial introduced in January 2023.

08/07/2024



The Guardian

[UAE cuts working week to four-and-a-half days and moves weekend](#)

The United Arab Emirates is cutting its working week to four-and-a-half days and moving its weekend from Friday-Saturday to Saturday-Sunday.

07/12/2021



The World Economic Forum

Four-day work week trial in Spain leads to healthier workers, less pollution

People are healthier, happier and more productive with a four-day working week. Less commuting is also better for the environment,...

25/10/2023



CBS News

Bill to create 4-day work week program in Massachusetts set for hearing

The push to bring a four-day work week to Massachusetts is set to get a hearing on Beacon Hill.

13/11/2023



Financial Times

Tokyo plans 4-day working week to boost births

The Tokyo Metropolitan Government will allow its staff to work a four-day week as authorities in the world's largest city begin a radical experiment to reverse...

12/12/2024



2019

2020

2021

2022

2023

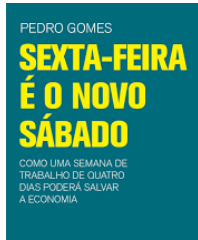
2024

2025

2026

Financial Times,
business books of
the month

Wall Street Journal
Books of the Year,
of Jason Furman



4 Day Week Trial in the Private Sector
of Portuguese Government (2023).
41 companies (1000 workers), various
sectors, most kept it after 6 months.

4 Day Week Trial in the Public Sector
of Azores Regional
Government (2026)
15 departments (400 workers)

Definition of a four-day week

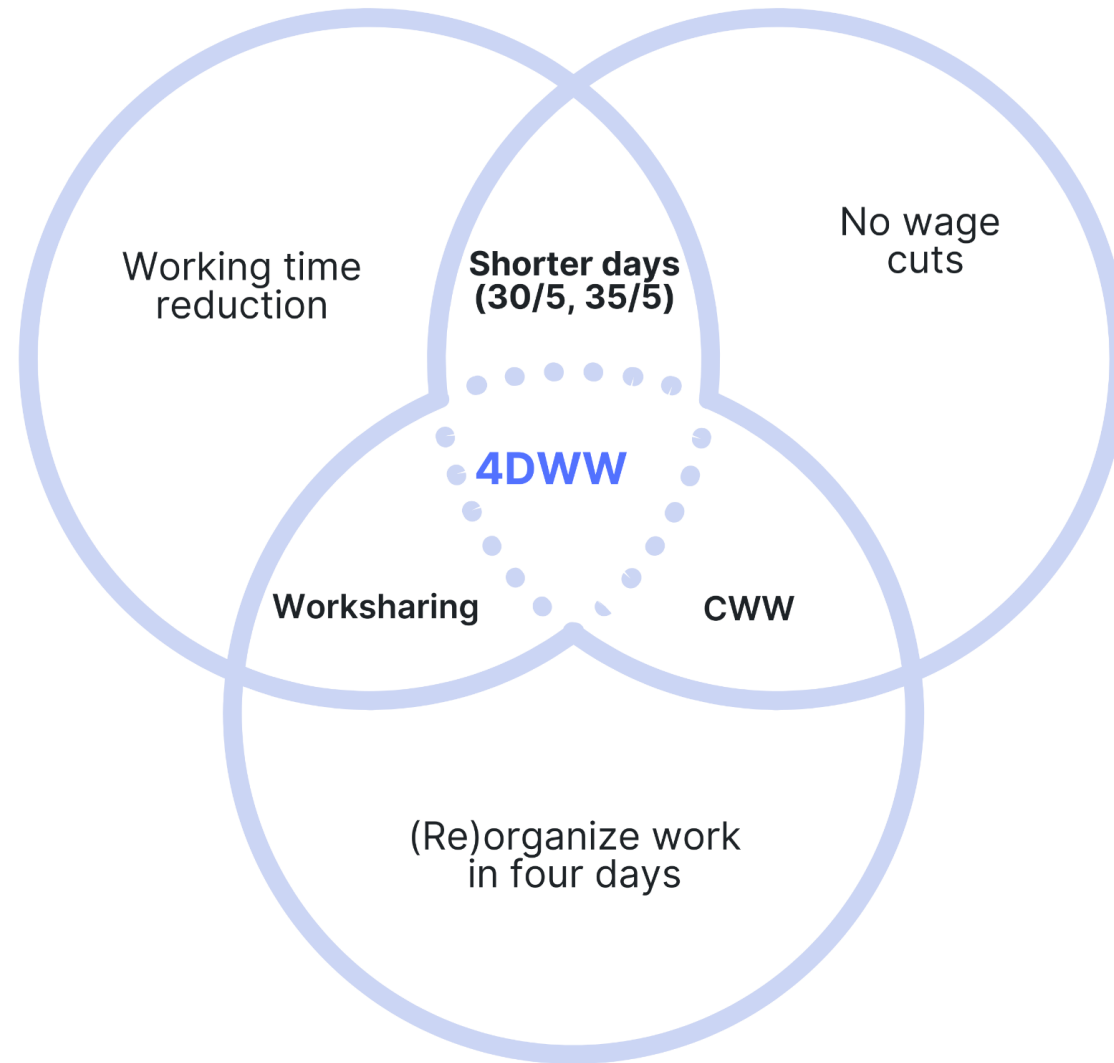
Management Practice

Is a form of working time reduction in which average weekly hours are significantly reduced, typically by providing regular additional days off.

It is implemented at the establishment rather than individual level, and accompanied by an internal reorganization of work, without cutting wages.

It does not imply a reduction of opening hours or service delivery.

Definition of a four-day week



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Macroeconomic Policy

Coordinated reduction of hours, applied at the industry level or to the whole economy through legislation or collective agreements.



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LIFESTYLE · FUTURE OF WORK

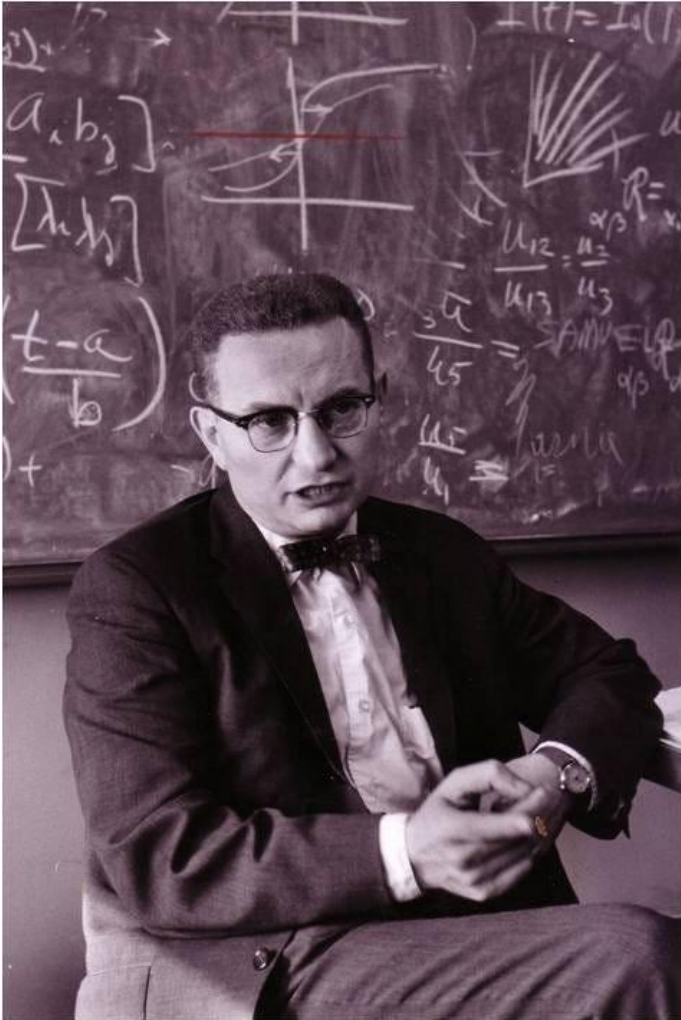
Germany is trialing a 4-day week like the U.K., U.S., and Portugal—but the country needs the opposite of a short week, senior economist says

BY [PRARTHANA PRAKASH](#)

January 31, 2024 at 1:25 PM GMT



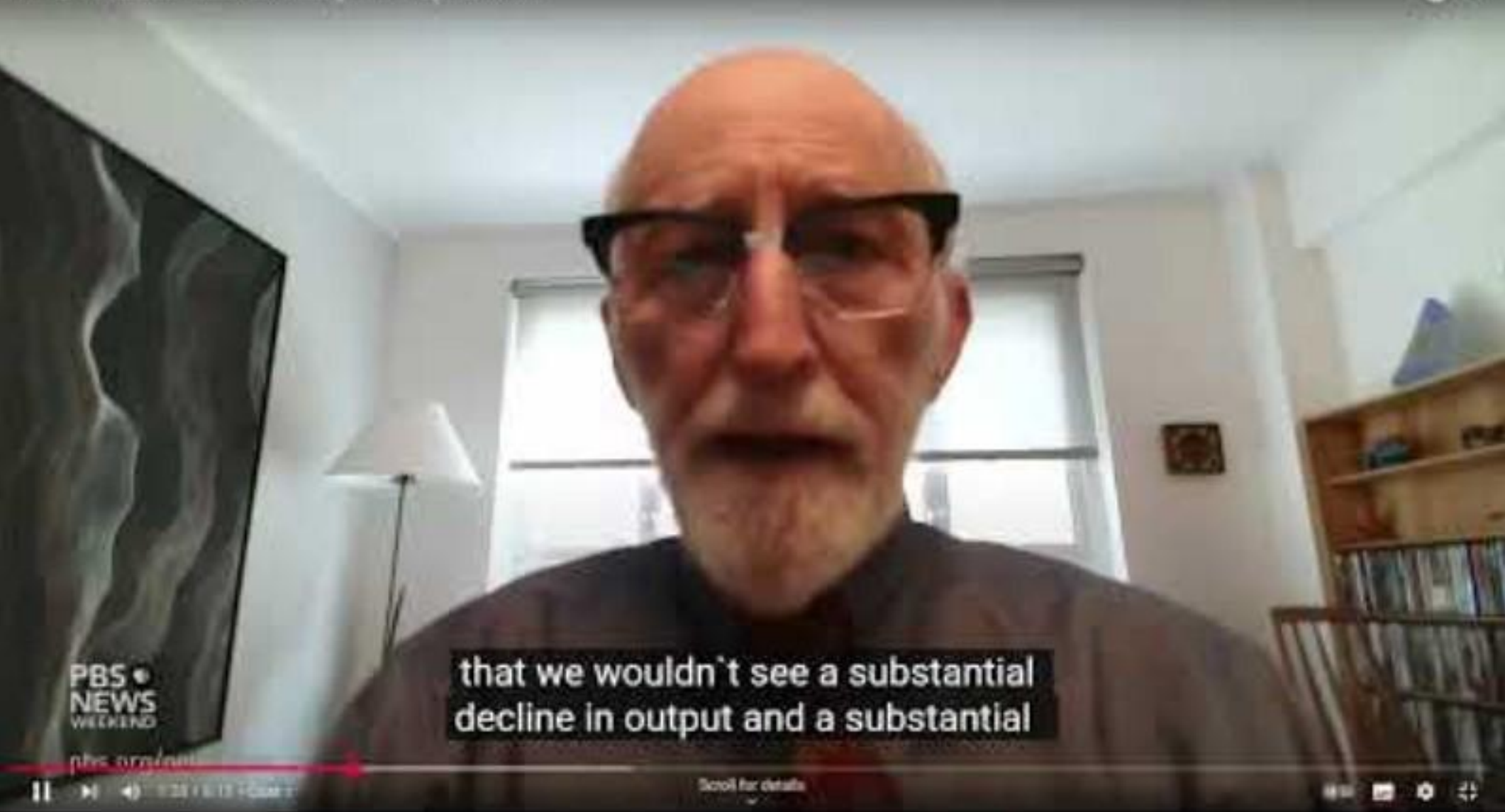
One economist that supported the four-day week



‘Progress comes from technical invention, and we shall be ever grateful to the discoverer of fire, the inventor of the electric dynamo, and the perfector of hollandaise sauce. But there are also momentous social inventions. Indeed, as society becomes more affluent, these may become increasingly vital. (...) The 4-day week is precisely such a social invention.’

Paul Samuelson, Nobel Prize, 1970

The costs and benefits of switching to a 4-day work week



PBS NEWS WEEKEND

that we wouldn't see a substantial decline in output and a substantial

1:23 / 6:13

Scroll for details

Standard video player controls: play/pause, volume, settings, full screen.

Economic Theory



Negative

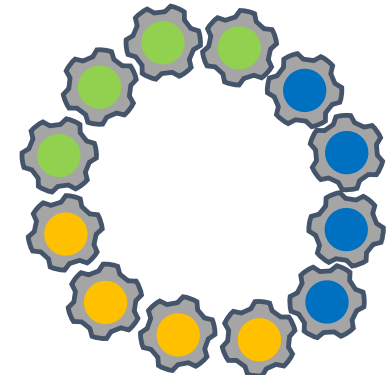


Positive



50 years ago

Economy



Society

Work



Negative



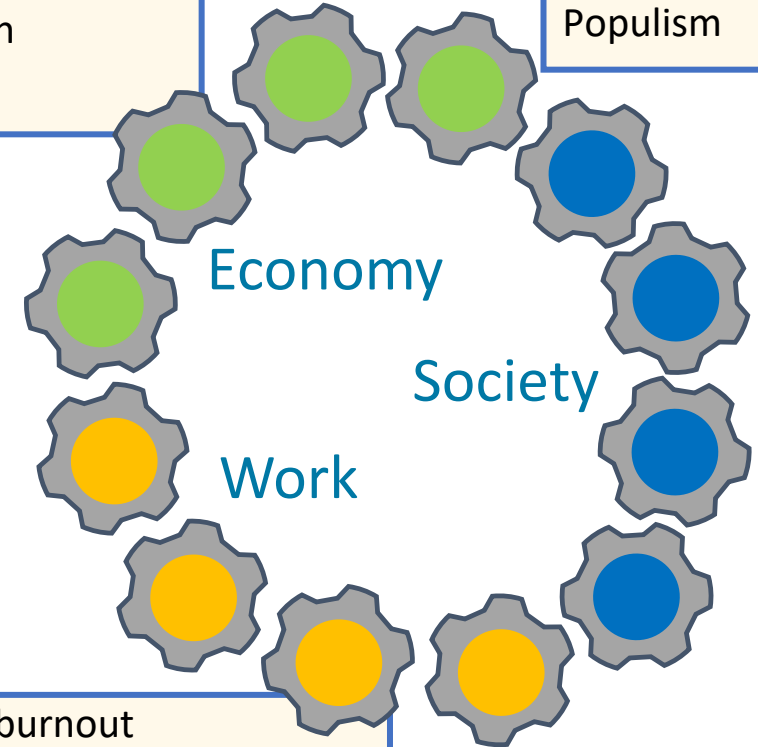
Positive



Now

Technological changes
Increasing market power
Low innovation
Inequality

Demographic changes
Climate crisis
Populism



Stress and burnout
Productivity slowdown
Increasing female participation



Evidence on effects of GDP Growth

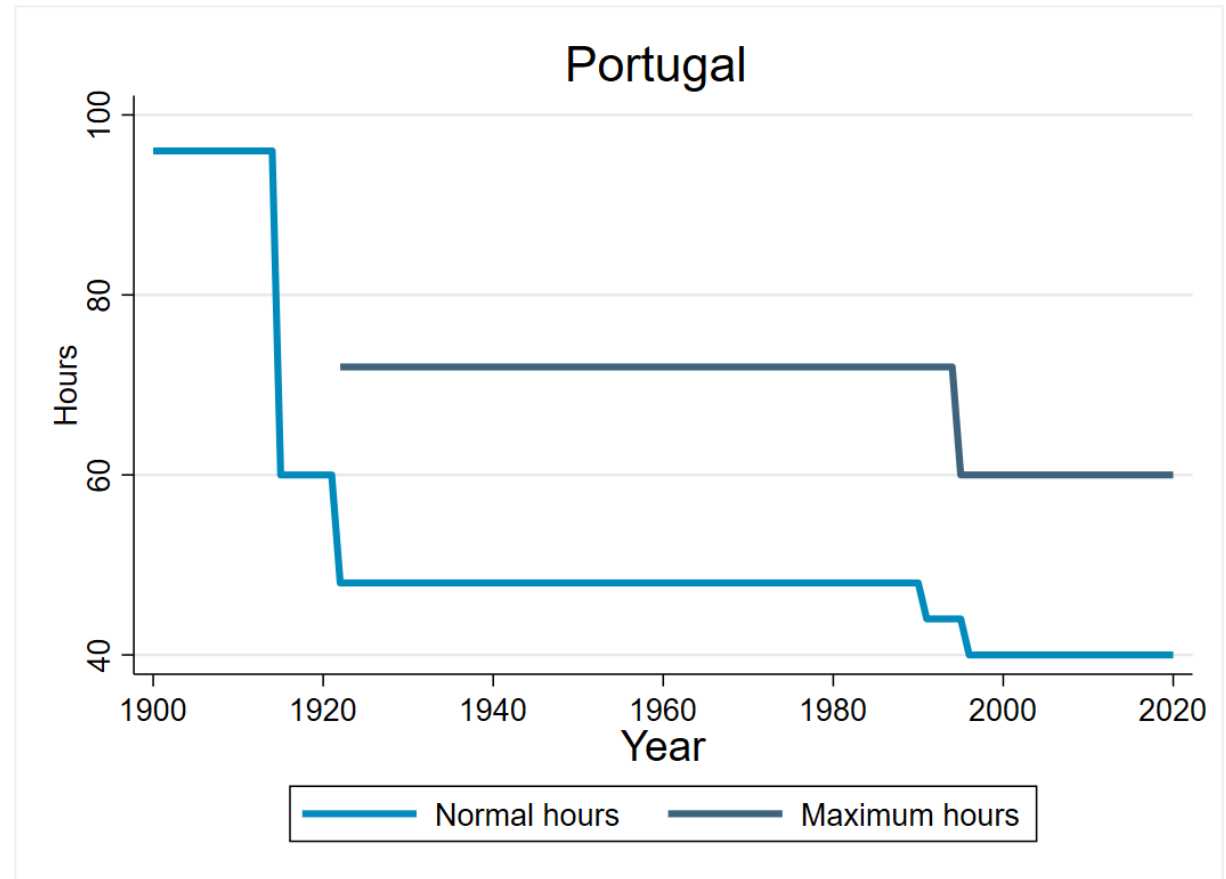
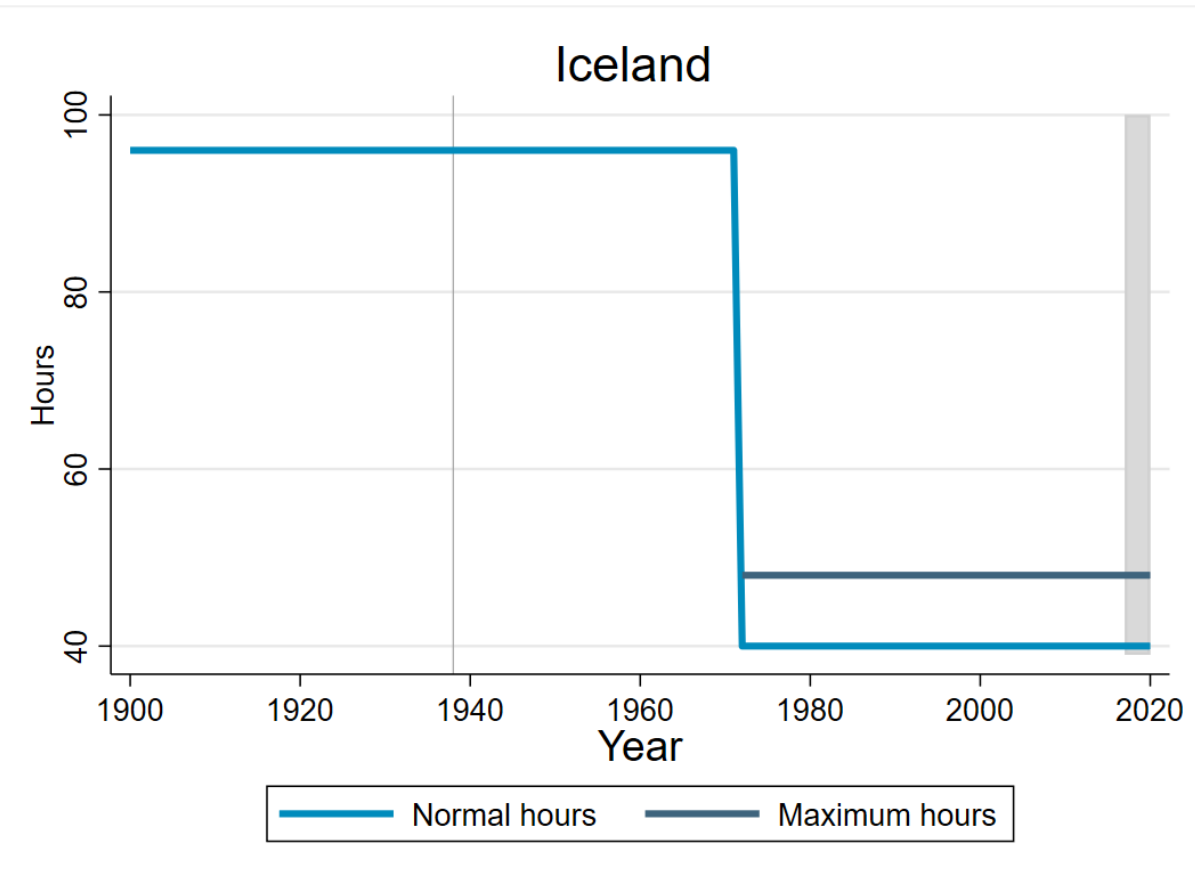
Working Time Regulation Dataset (Rasmussen, 2024)

- Manually coded information on general working time reforms
- 203 economies between 1789 and 2020
- “Typical worker:” 40-year-old male manual wage earner, employed in a mid-sized manufacturing firm, in September.

Global Macro Dataset

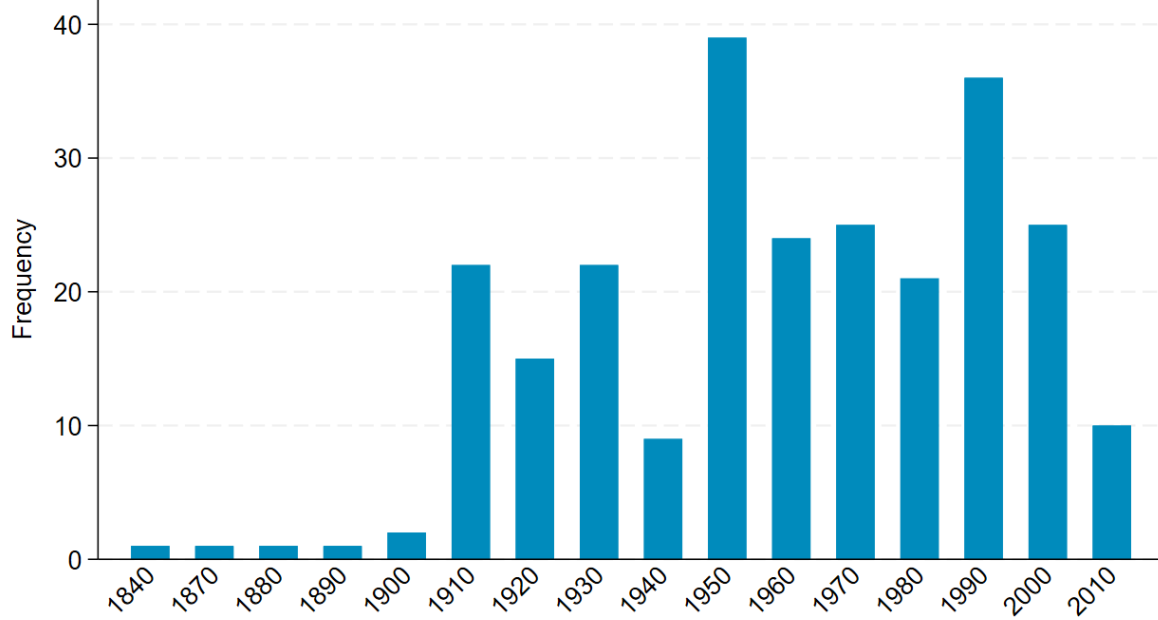
- Most comprehensive historical dataset of macroeconomic statistics.

Two examples in dataset

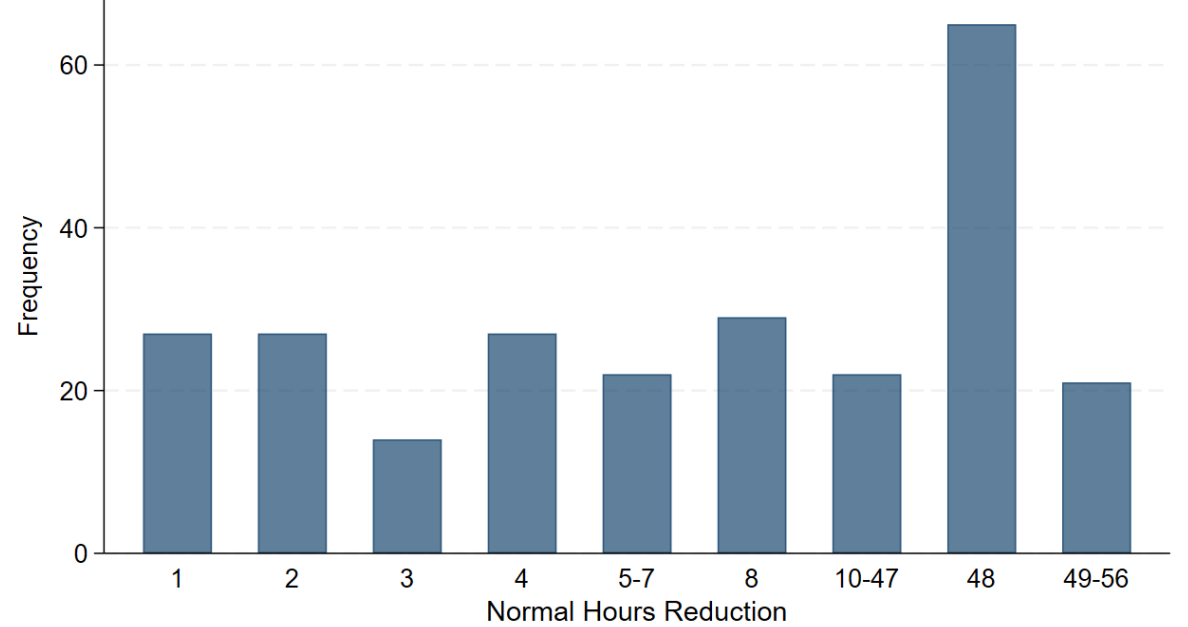


Legislative Episodes

Distribution by Decade

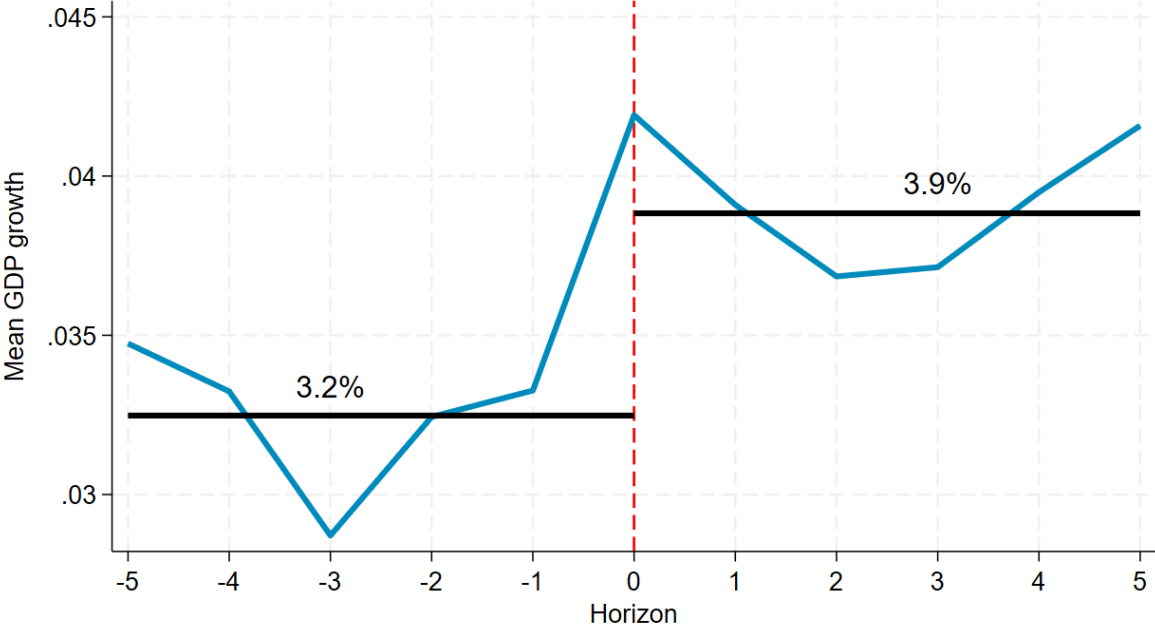


Distribution of Hours Reduction

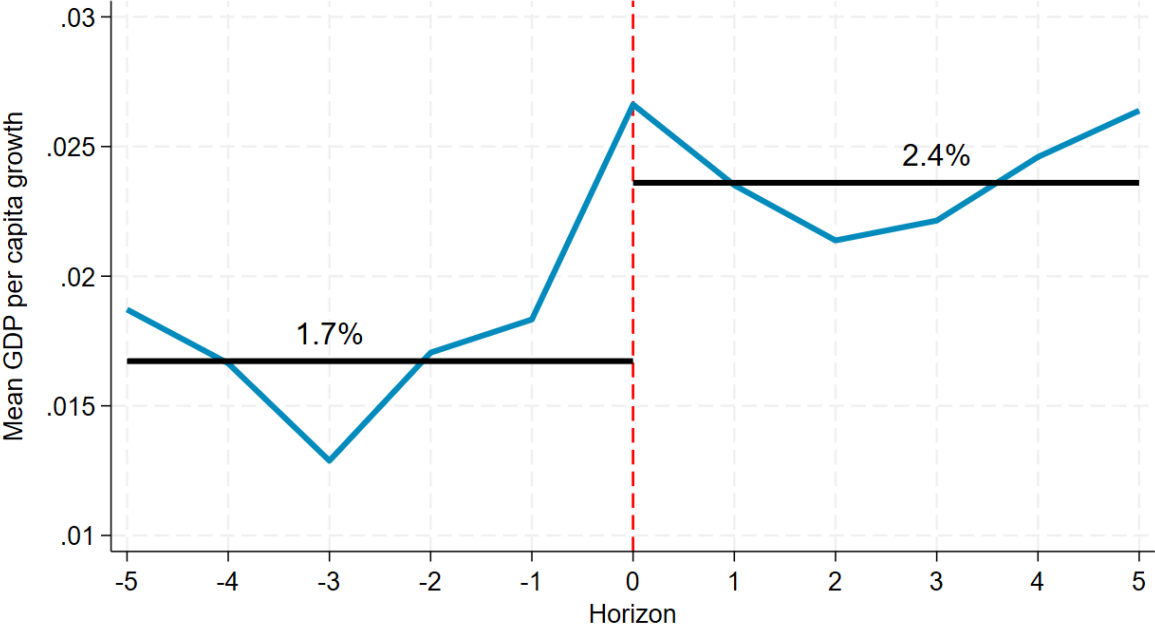


GDP Growth around legislative episodes (raw)

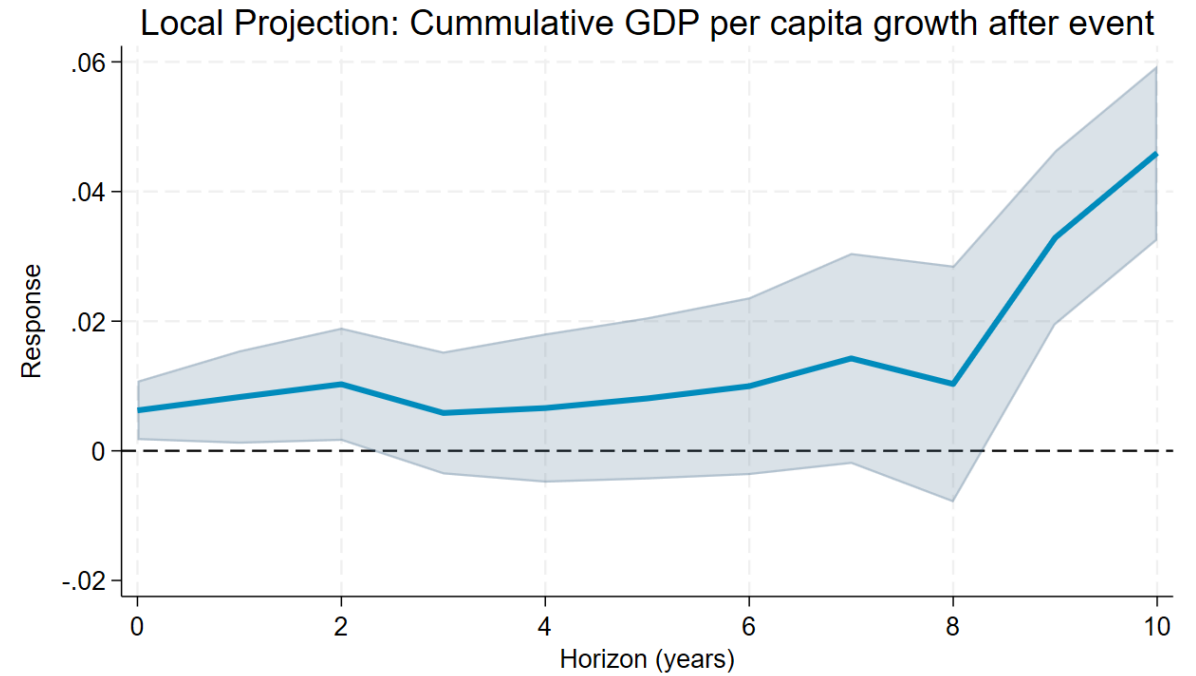
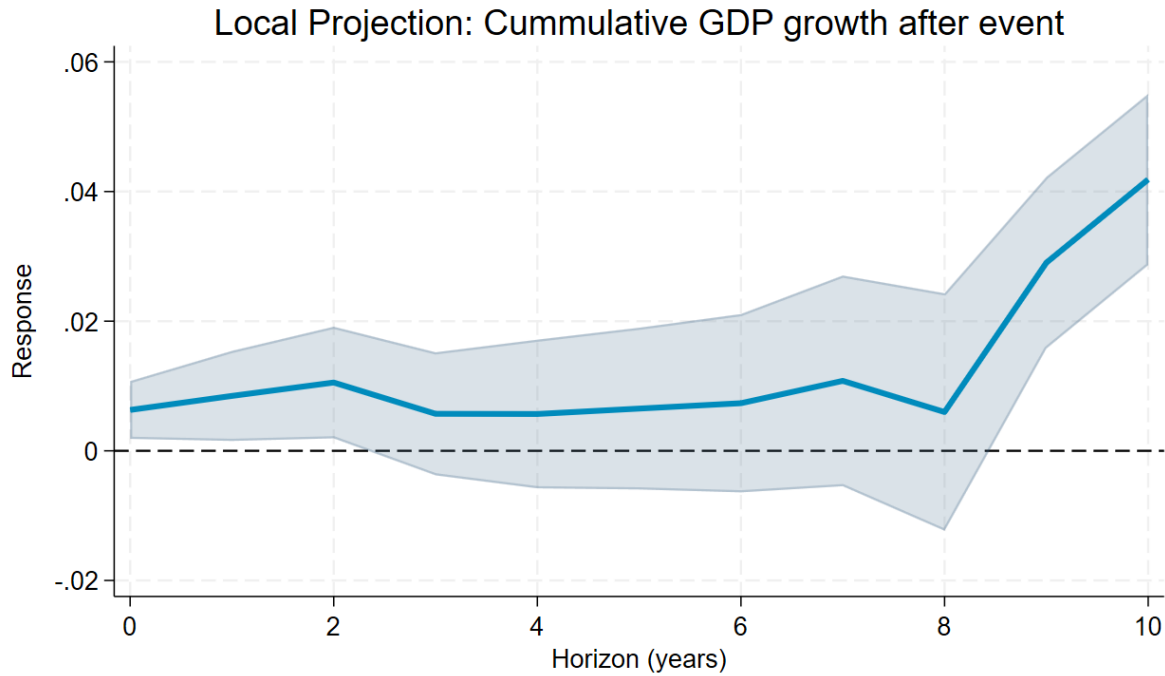
GDP growth around legislative event



GDP per capita growth around legislative event

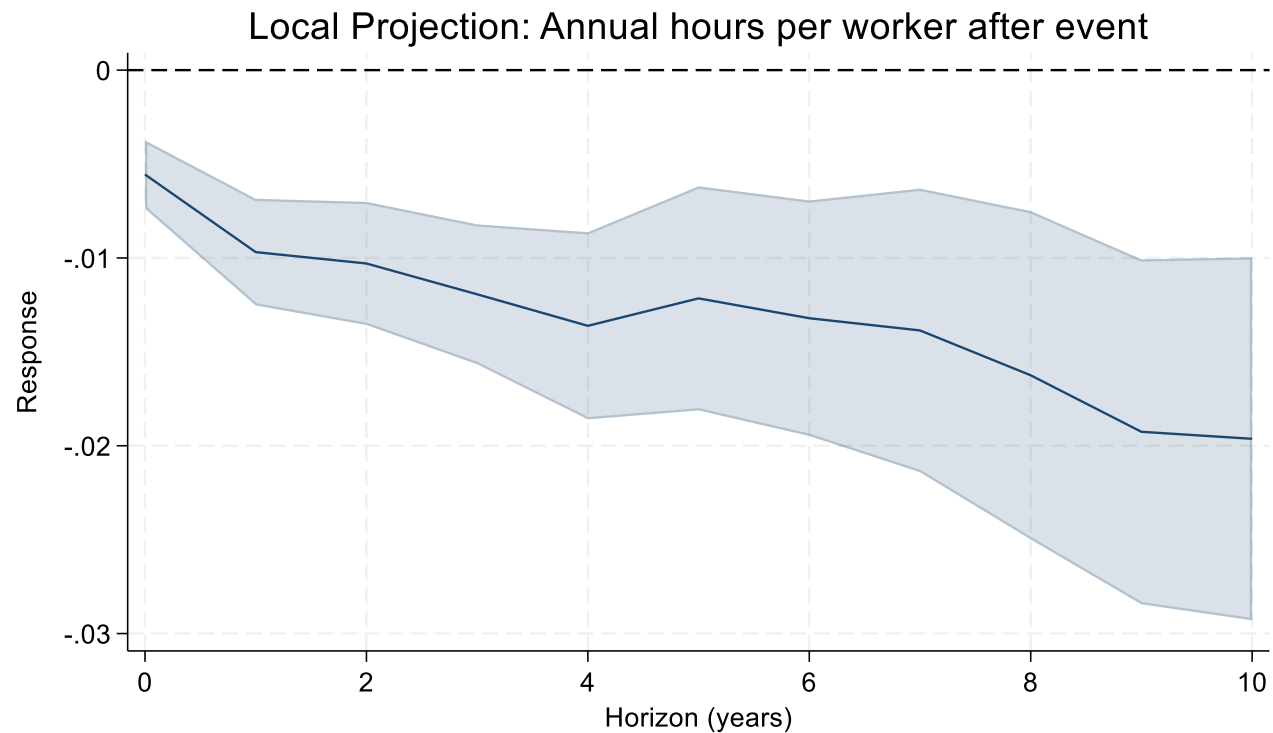


More sophisticated econometrics



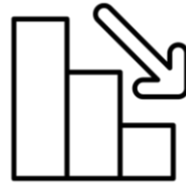
Note: Bands (+- 1 s.d). Based on 250 events.

More sophisticated econometrics

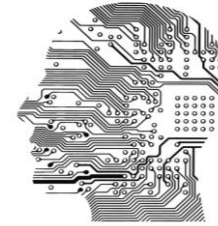


Note: Bands (+- 1 s.d), based on 65 events.

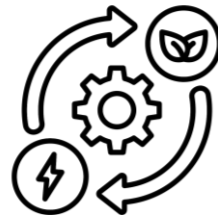
1. Productivity
Slowdown



2. Artificial
Intelligence



5. Green
Transition



**Biggest
Challenges**



3. Demographic
changes



4. Rise of
Populism



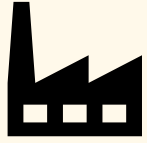
Does a four-day week increase productivity?

Productivity per hour => YES!

Productivity per worker => Depends

Pilots

- 3 months of preparation / 6 months of trial
- How to choose the format? How to design HR policies?
- How to measure productivity? Define success.
- How to inform workers and clients?
- How to redesign the workday? How to re-think processes and the use of technology



The majority of companies that experiments are able to maintain its services (productivity per hour increases). How?

Following from effects on workers



1. More rested workers
2. Reduction of absenteeism
3. Reduction of worker turnover

Depend on the implementation and require joint effort between workers and managers



4. Intelligent choice of format
5. Changes in work organization, improvement of processes, adoption of technology and best practices.
6. Reduction of intermediate costs

Why these channels are more important now?

- Productivity Slowdown
- Stress & Burnout
- Increase part-time & self employment



Caminhos de Infância
Nursery, **Portugal**

Key: lower
absenteeism, other
savings, reshuffling of
tasks.



Vrinnevisjukhuset and Linköping
University Hospital, **Sweden**

300 nurses in 24/7 surgical wards

Key: lower absenteeism and
turnover, increase PT to FT, rota
planning.



La Francachela
Restaurant, **Spain**

Key: lower turnover, use
of technology, changes
in processes



Pursuit Marketing,
Call Center, **Scotland**

Key: choice of format,
lower turnover, increase
PT to FT, rota planning.



Dutton Engineering,
Manufacturing, **England**

Key: annualised hours
(since 1980s), UK's Best
SME for productivity
improvement (1996)



Lamborghini,
Manufacturing, **Italy**

Key: nine-day
fortnights, collective
agreements.

Causal evidence of productivity effects after legislation?

Carry et al. (2025), France, 39=>35 hours

↓6% hours per worker → ↓1% Value added per worker
↑3% TFP

Asai et al. (2024), Portugal, 44=>40 hours

↓6% hours per worker → ↑ 4.4% productivity per hour

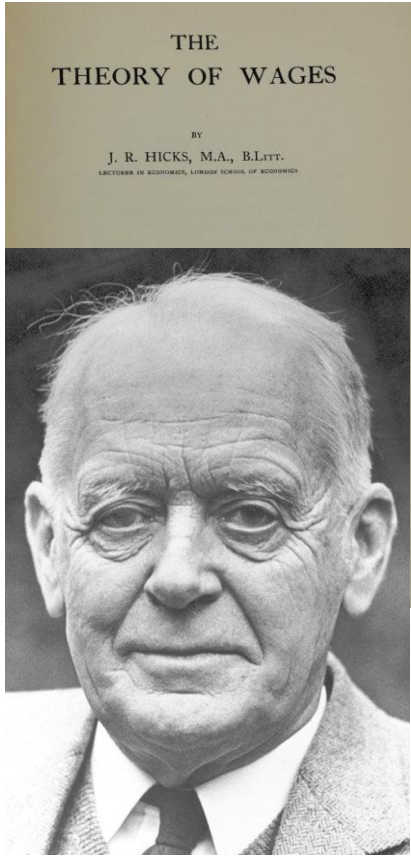
Lee e Lee (2016), South Korea, 44=>40 hours

↓1 hour per worker → ↓8% accidents at work

Prodromidis et al. (2025), Sweden, 55=>48 hours (1920)

↓15% mortality

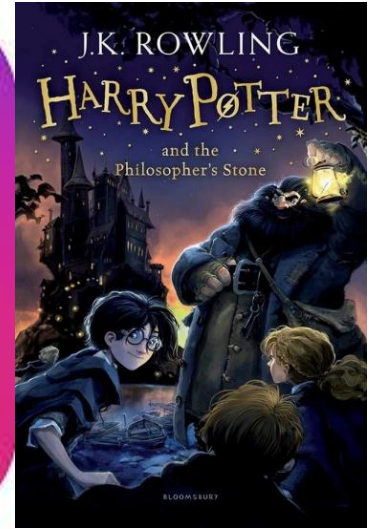
Why aren't more companies experimenting?



It was found, after they had been reduced, that “the output of eleven hours’ work might be greater than that of twelve”.¹ Employers had been working at more than the output optimum, without realising it.

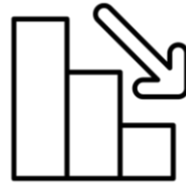
Probably it had never entered the heads of most employers that it was at all conceivable that hours could be shortened and output maintained. But it is

A long-term effect... hybrid entrepreneurship

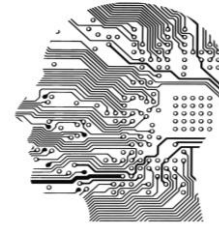


Example of Edmund Phelps' **Grassroots Innovation**

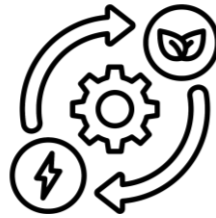
1. Productivity
Slowdown



2. Artificial
Intelligence



5. Green
Transition



**Biggest
Challenges**



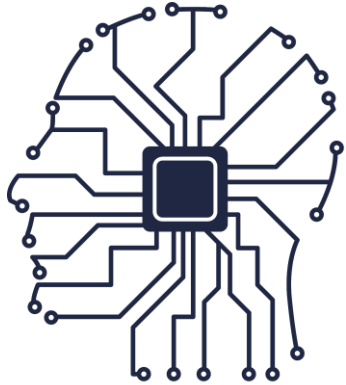
3. Demographic
changes



4. Rise of
Populism



What are the effects of new technology?



Short-run

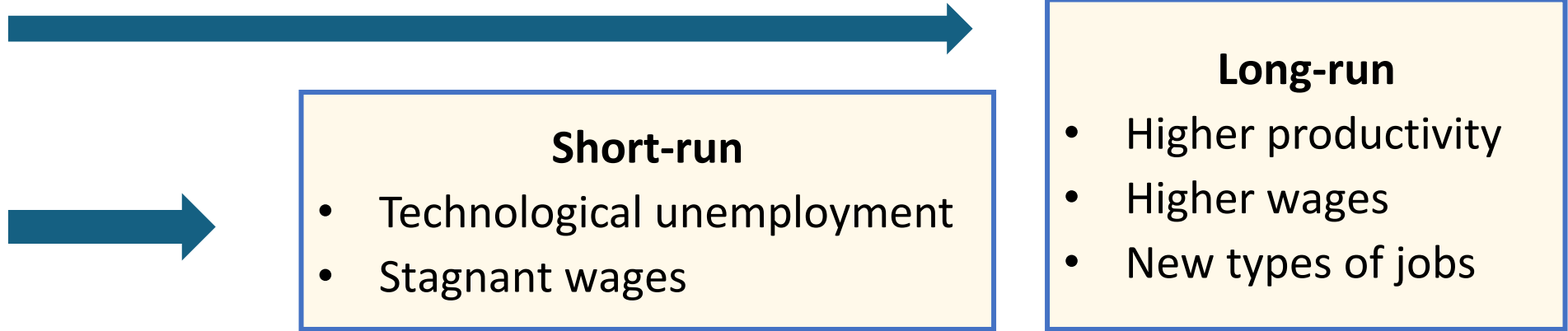
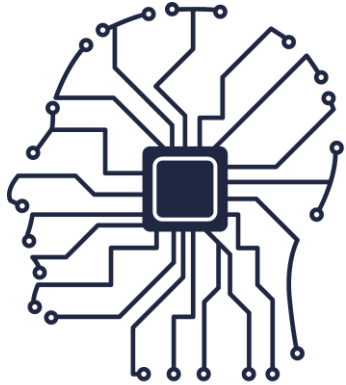
- Technological unemployment
- Stagnant wages

Long-run

- Higher productivity
- Higher wages
- New types of jobs

$$\text{Productivity} = \frac{\text{Gross value added}}{\text{Total hours worked}} = \frac{\text{Value of sales} - \text{Intermediate costs}}{\text{Number of workers} \times \text{hours per worker}}$$

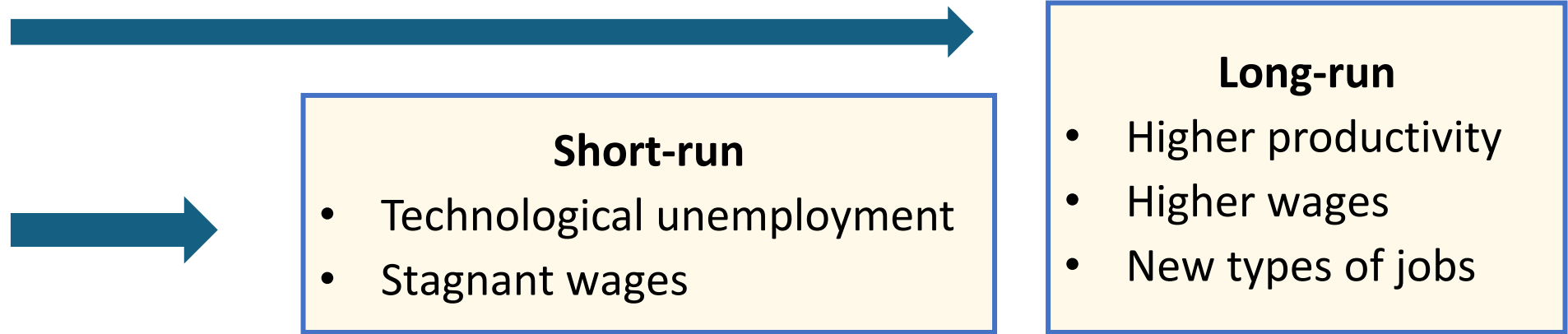
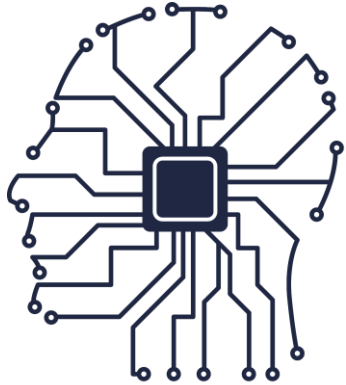
What are the effects of new technology?



Growing sectors

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What are the effects of new technology?

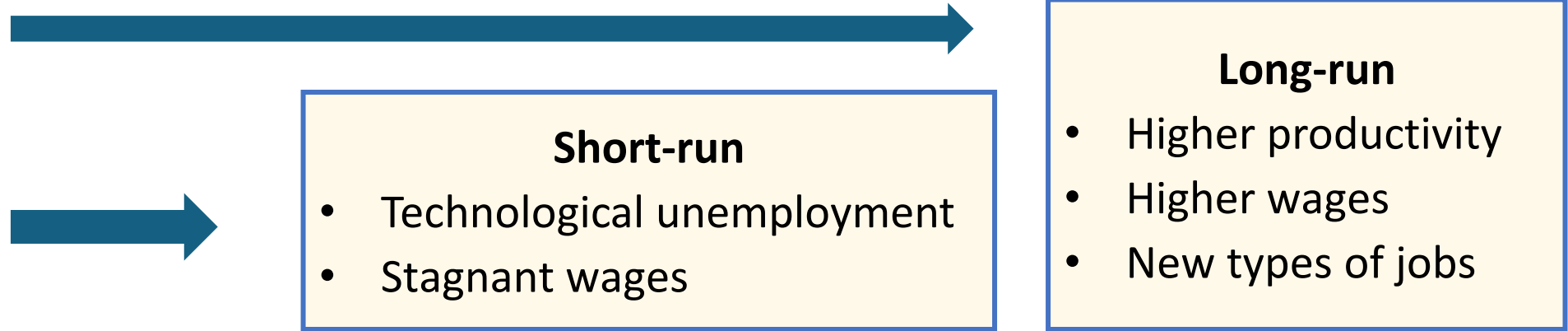
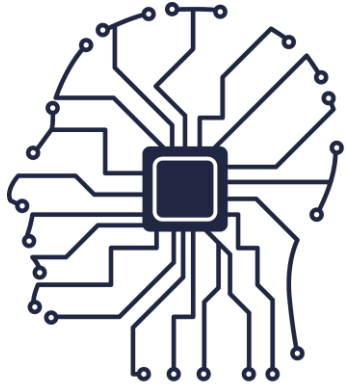


Growing sectors

$$\textit{Productivity} = \frac{\textit{Gross value added}}{\textit{Total hours worked}} = \frac{\textit{Value of sales} - \textit{Intermediate costs}}{\textit{Number of workers} \times \textit{hours per worker}}$$

Consolidated sectors

What are the effects of new technology?



Growing sectors

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Consolidated sectors

Four-day week

Shortening of the working week



‘When workers are displaced by machines, the economy can suffer from the loss of their purchasing power. Historically the problem has been eased by shortening the work week, a trend currently at a standstill.’

Wassily Leontief, *The Distribution of Work and Income* (1980)

Why?

1. Reduces incentives to displace workers following automation.

Shortening of the working week



Economics Letters

Volume 106, Issue 1, January 2010, Pages 61-63



How working time reduction affects jobs and wages

Pedro S. Raposo ^a ✉, Jan C. van Ours ^{a, b, c} ✉

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<https://doi.org/10.1016/j.econlet.2009.10.001>

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Abstract

In 1996, by law the maximum standard workweek in Portugal was reduced from 44 h to 40 h. We find that for workers involved this change reduced the job separation rate and increased hourly wages, keeping monthly earnings approximately constant. The working hours reduction

Shortening of the working week



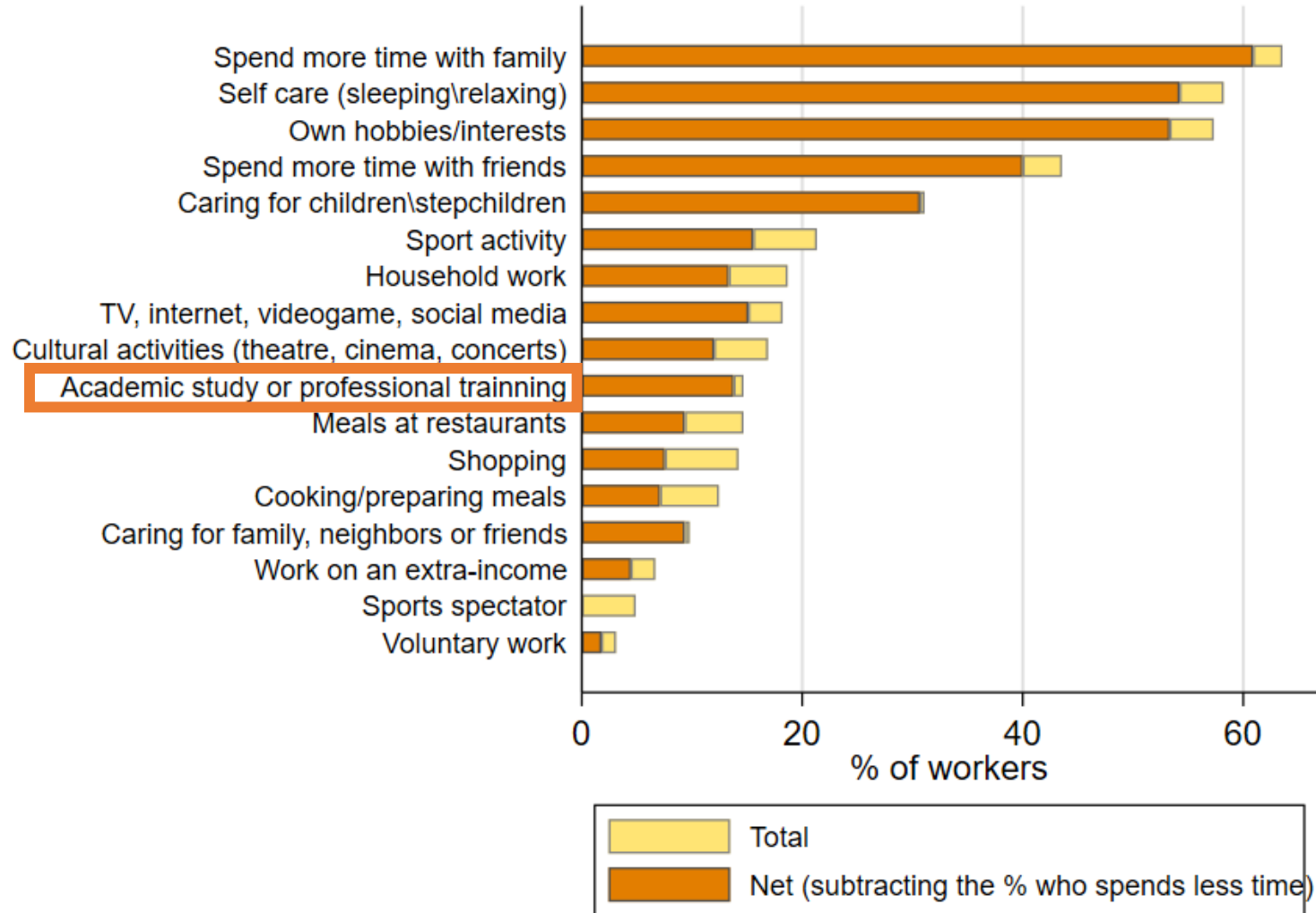
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Why?

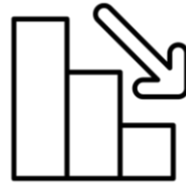
- Reduces incentives to displace workers following automation.
- Gives time and foster retraining, or to go for self-employment.

Percentage of workers who spend more time on each activity (Portuguese Pilot)

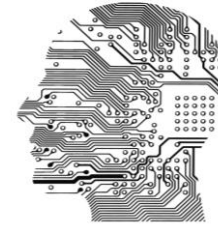


Note: Data from the 225 employees of the companies participating in the pilot who answered the pre-pilot survey and the survey at six months.

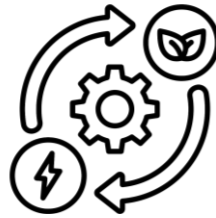
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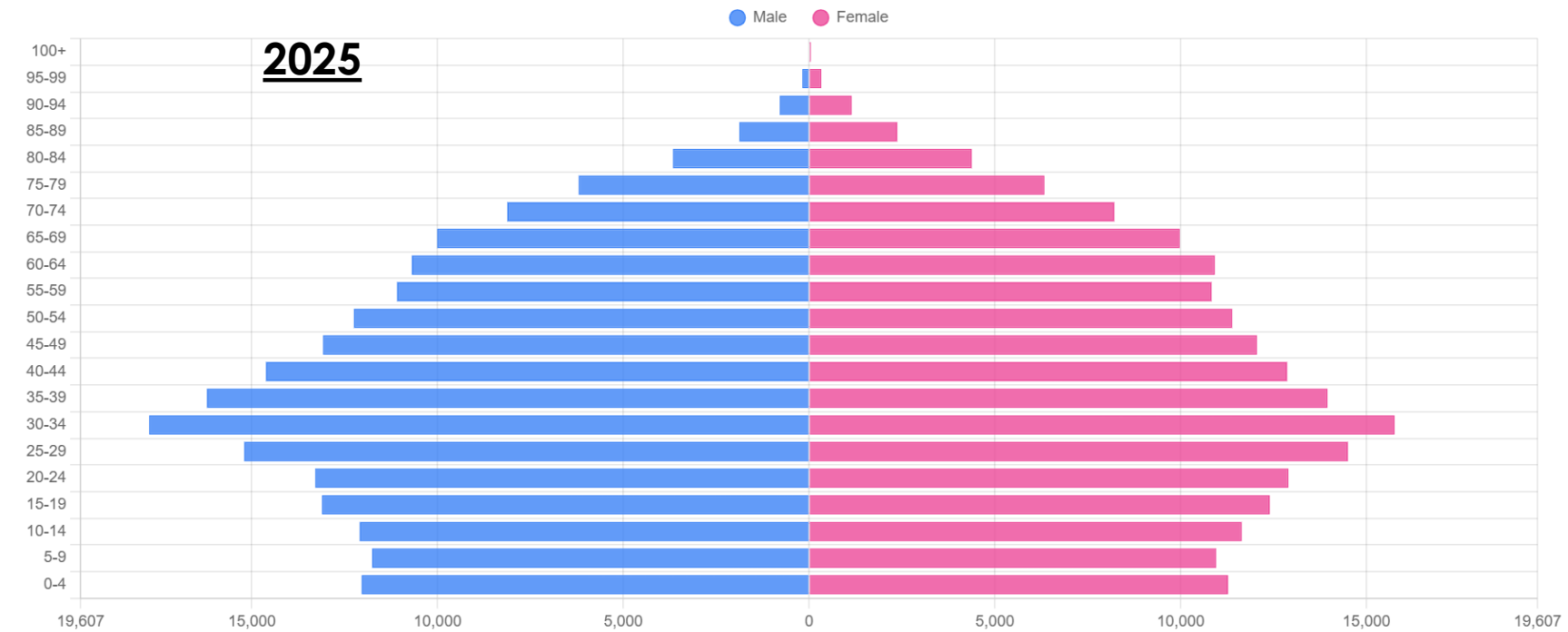
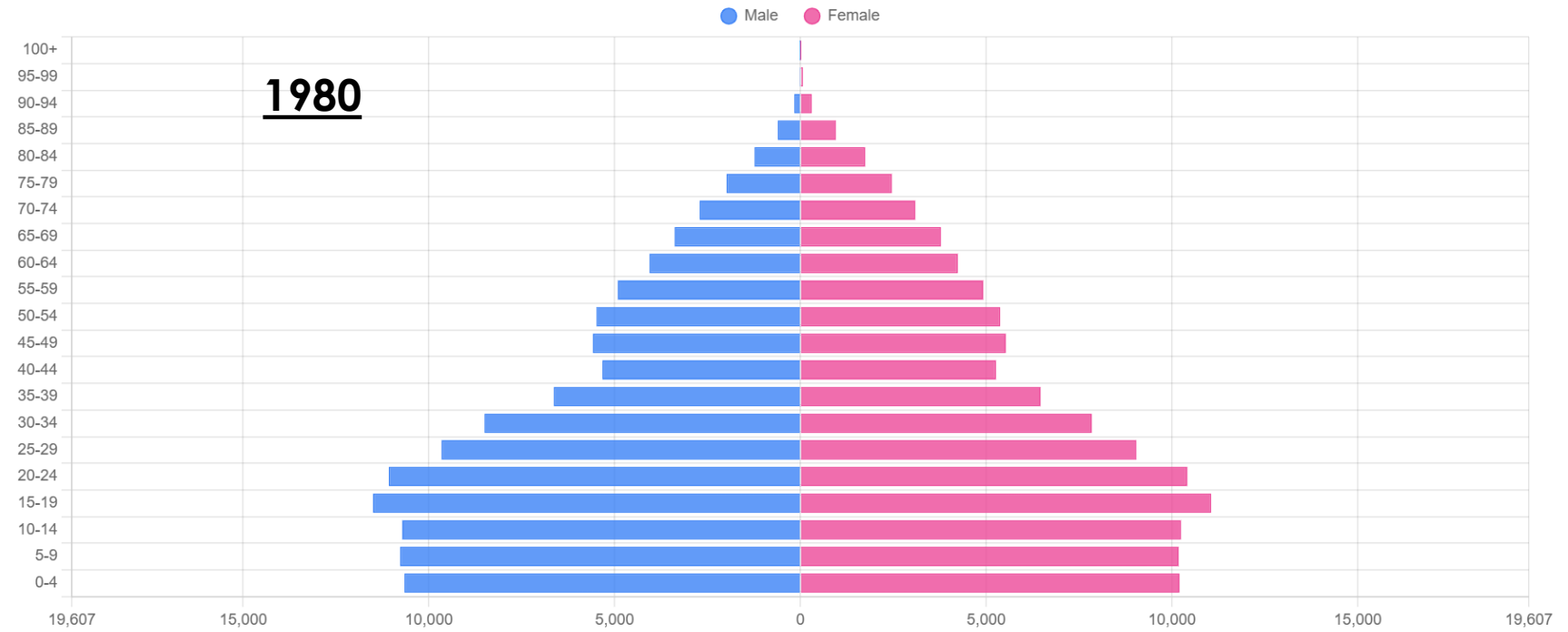
3. Demographic
changes



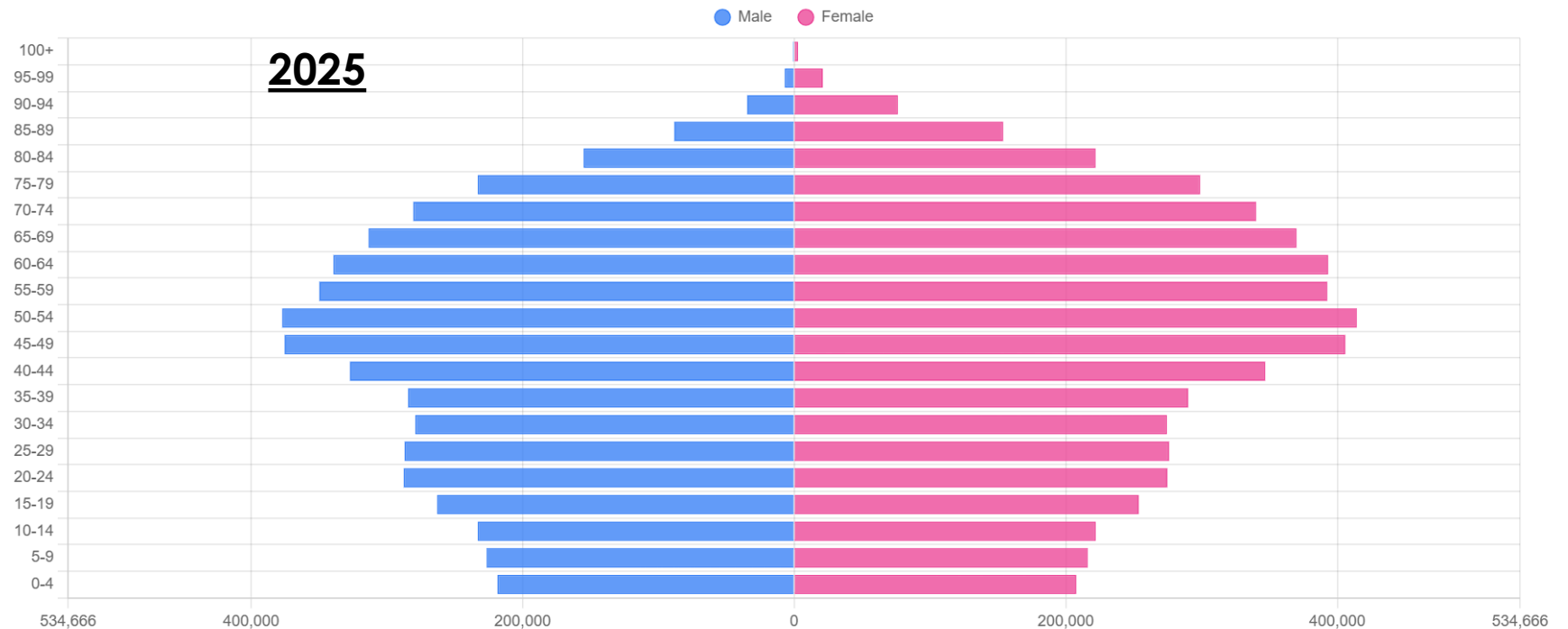
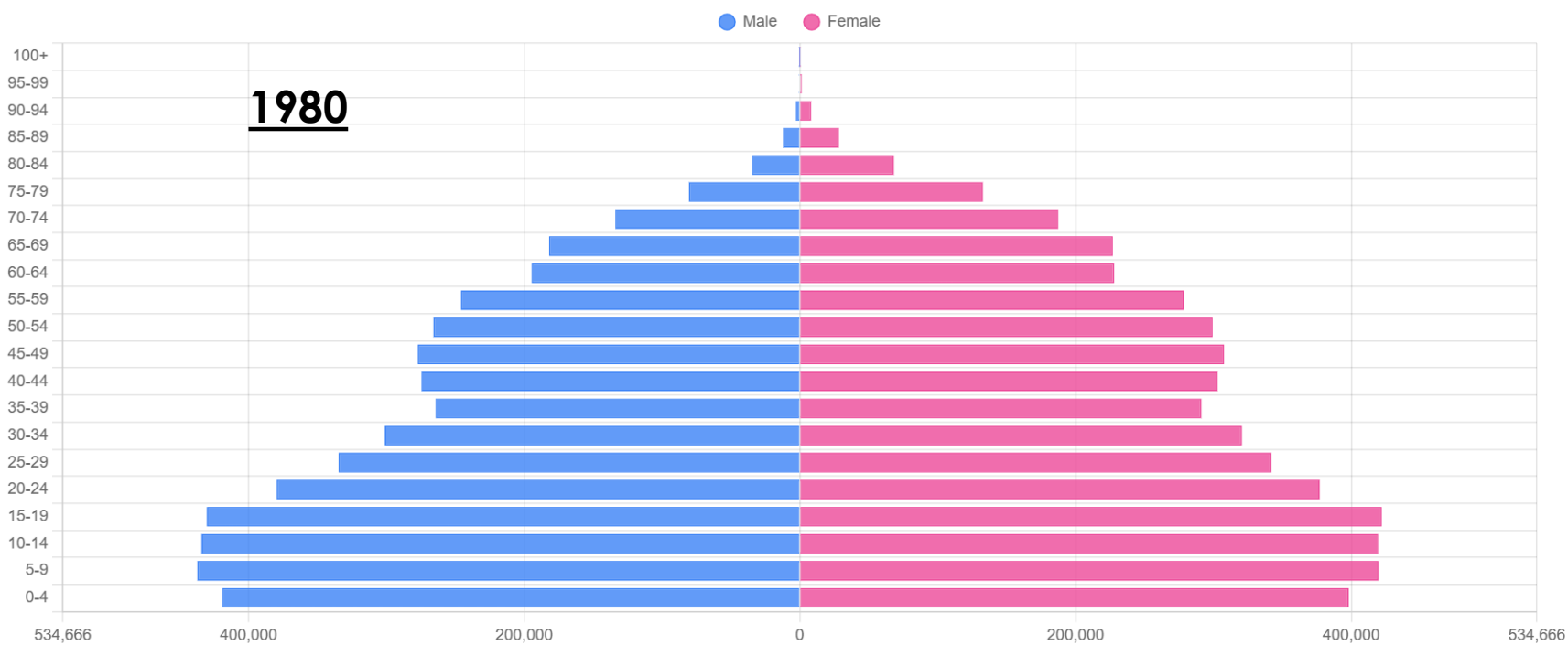
4. Rise of
Populism



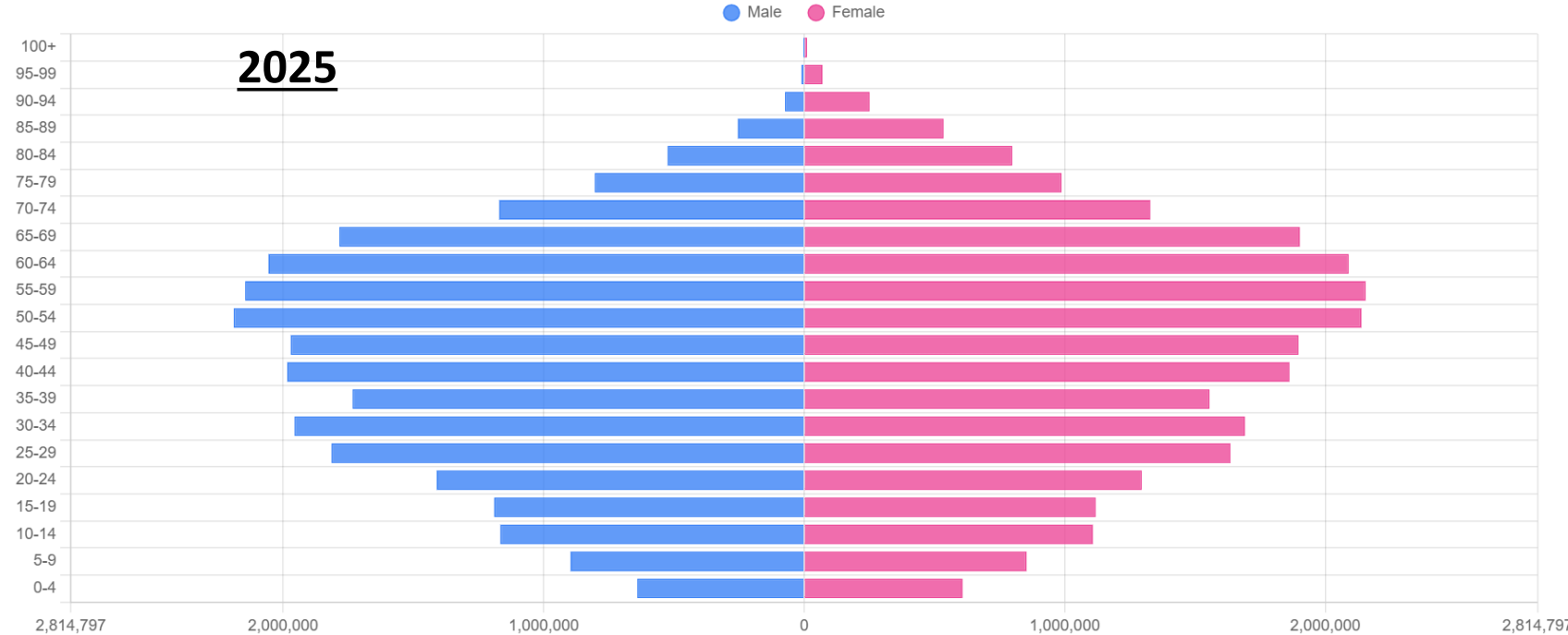
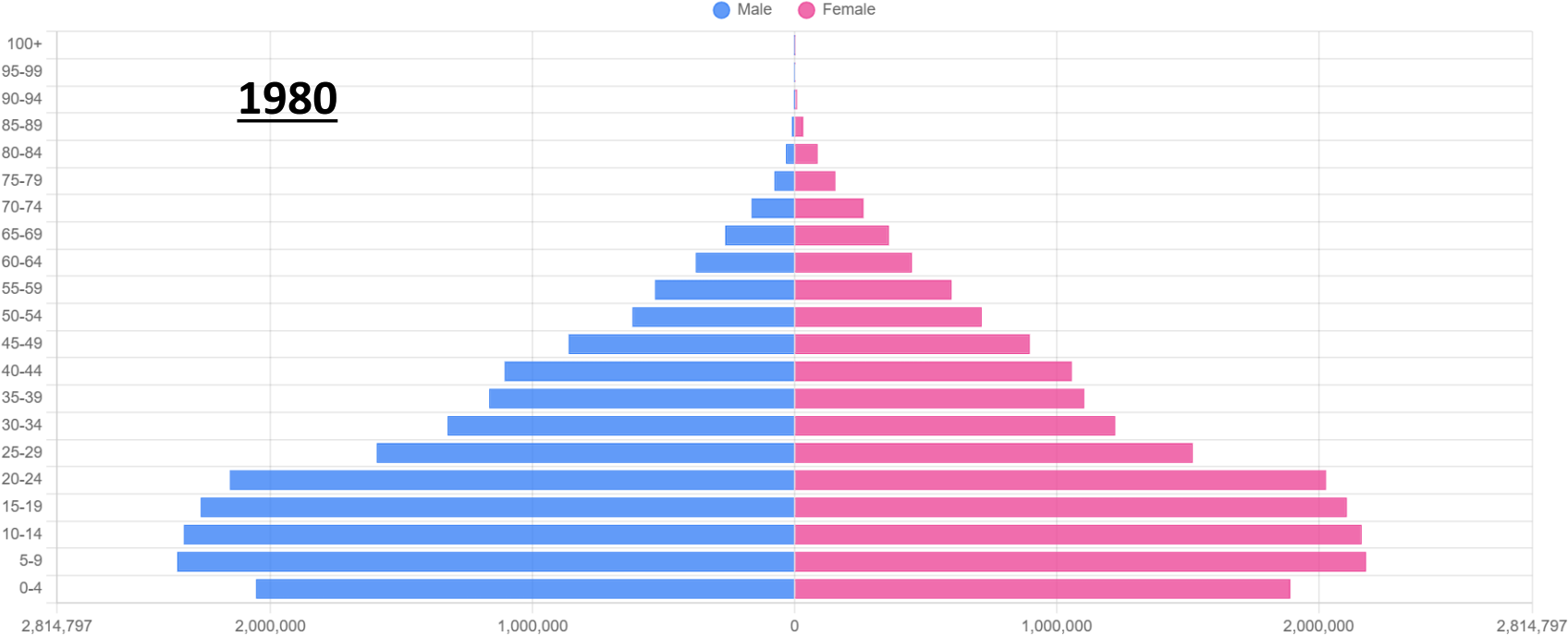
Iceland



Portugal

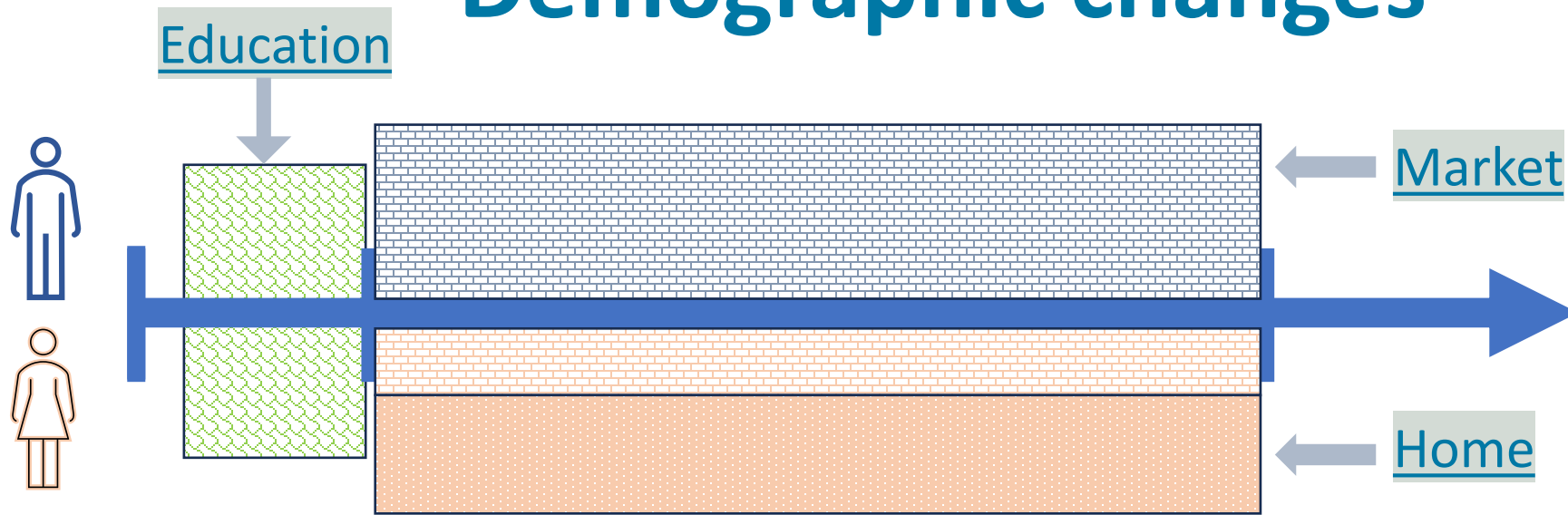


South Korea

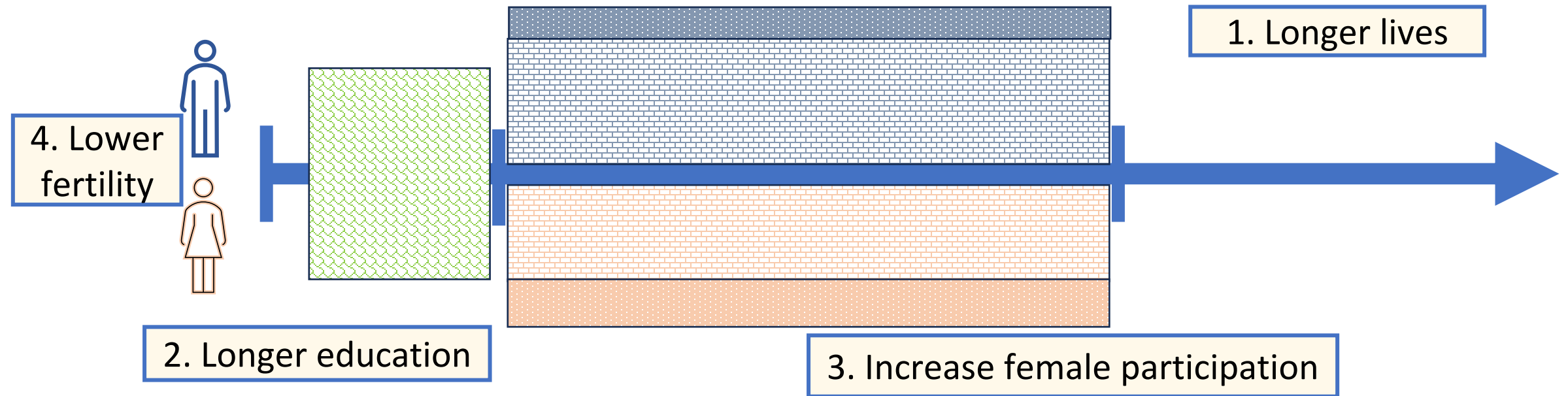


Demographic changes

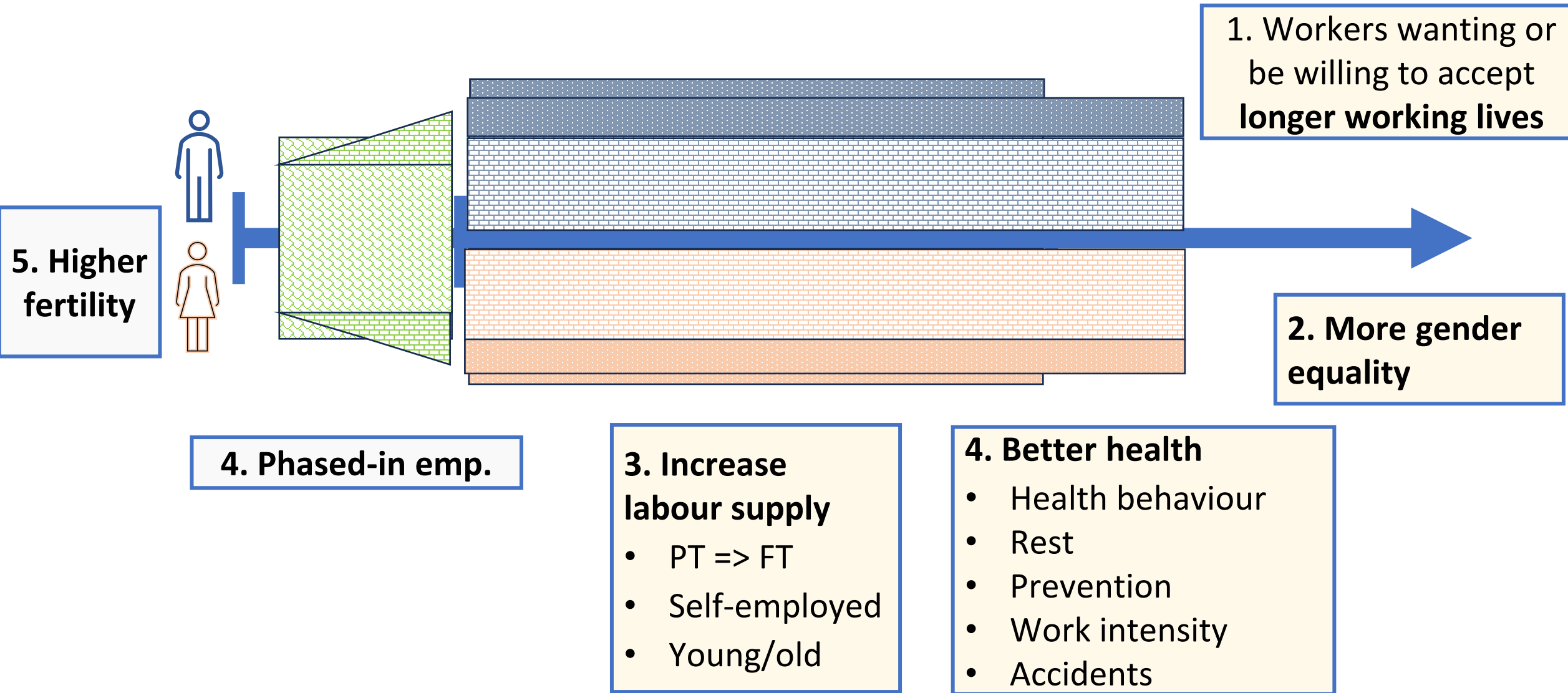
1970



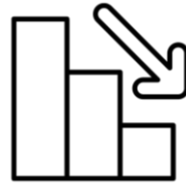
2025



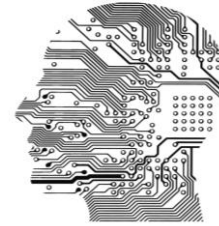
Effects of a four-day week (based on evidence)



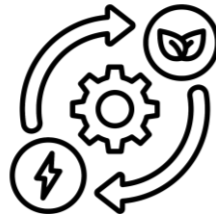
1. Productivity
Slowdown



2. Artificial
Intelligence



5. Green
Transition



**Biggest
Challenges**



3. Demographic
changes



4. Rise of
Populism





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Populist Leaders and the Economy

Manuel Funke

Moritz Schularick

Christoph Trebesch

AMERICAN ECONOMIC REVIEW (FORTHCOMING)

Abstract

Populism at the country level is at an all-time high, with more than 25% of nations currently governed by populists. How do economies perform under populist leaders? We build a new long run cross- country database to study the macroeconomic history of populism. We identify 51 populist presidents and prime ministers from 1900 to 2020 and show that the economic cost of populism is high. After 15 years, GDP per capita is 10% lower compared to a plausible non-populist counterfactual. Economic disintegration, decreasing macroeconomic stability, and the erosion of institutions typically go hand in hand with populist rule.



Workers

4 DAY WEEK - PORTUGAL

WORKERS

EXPERIMENTAL GROUP

332 workers in companies that took part in the pilot



CONTROL GROUP

160 workers in companies in the control group



HOURS ACTUALLY WORKED:

BEFORE THE PILOT

41.6
HOURS



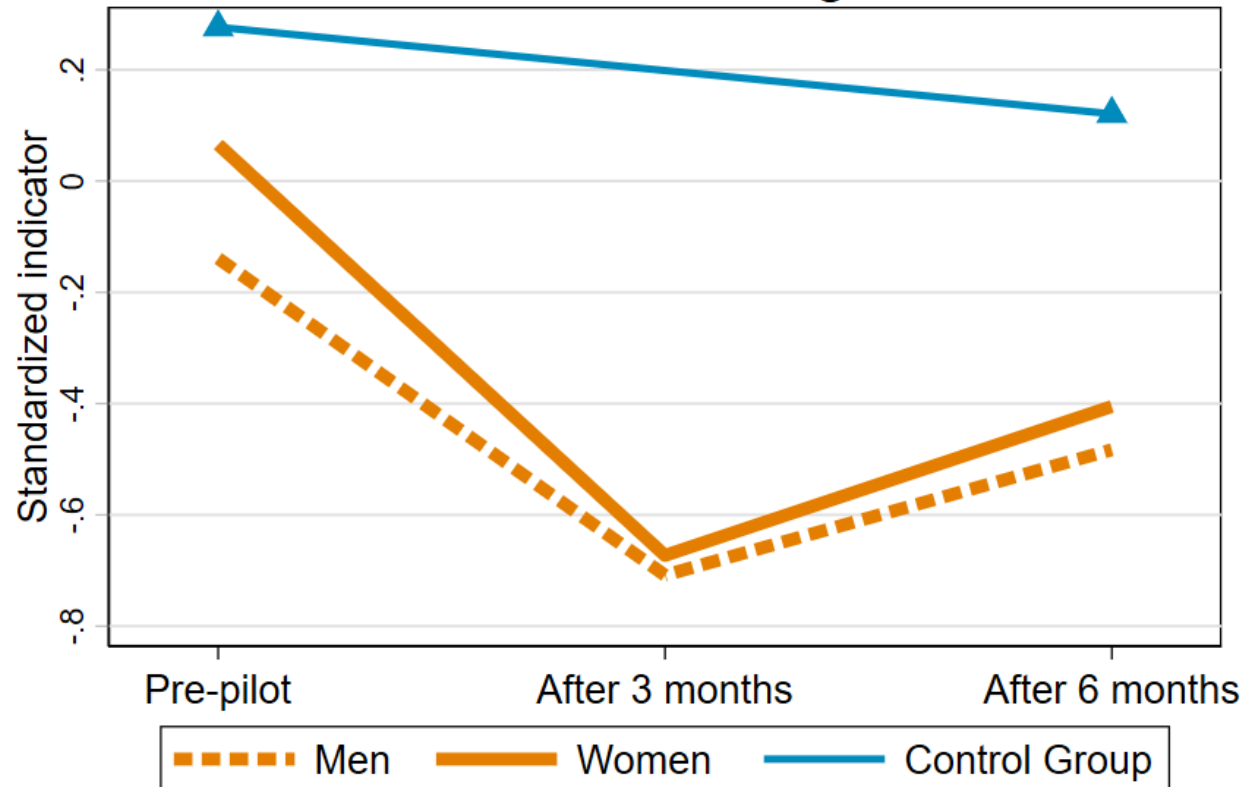
DURING THE PILOT

36.5
HOURS

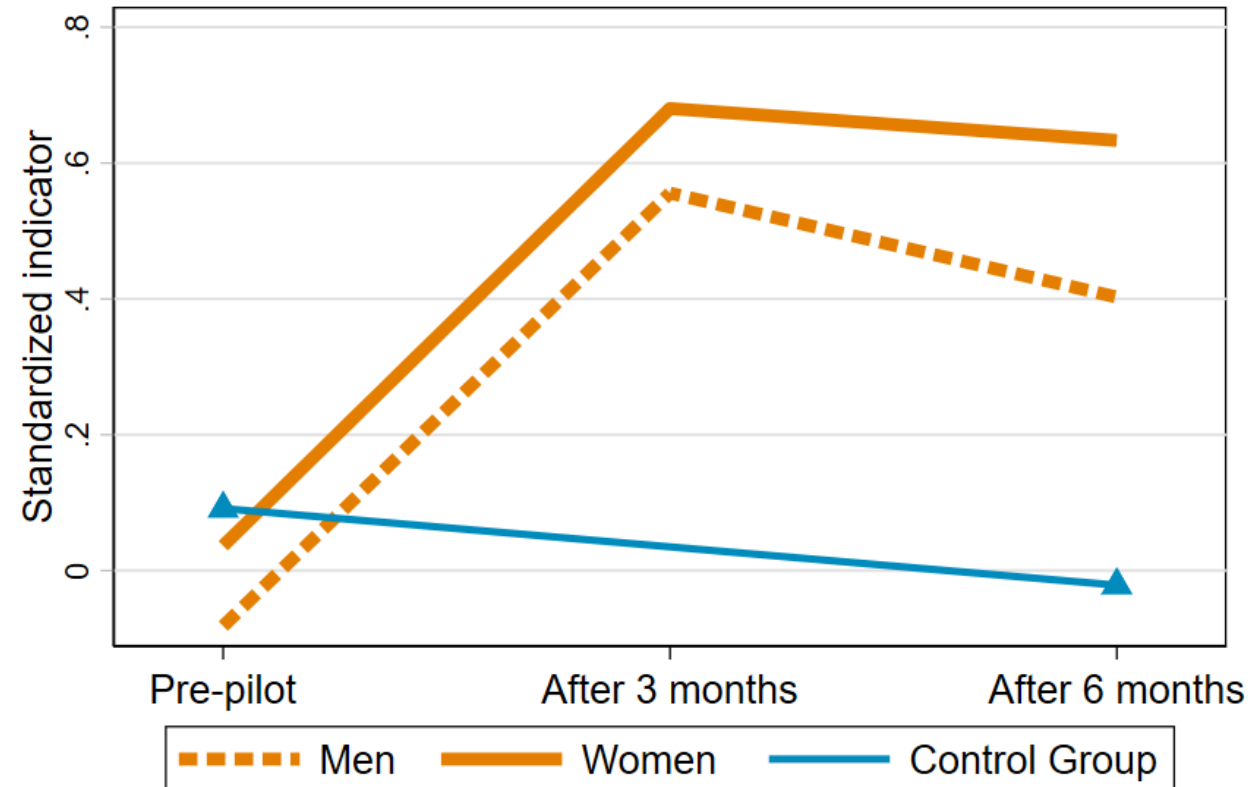


Workers

Exhaustion and fatigue



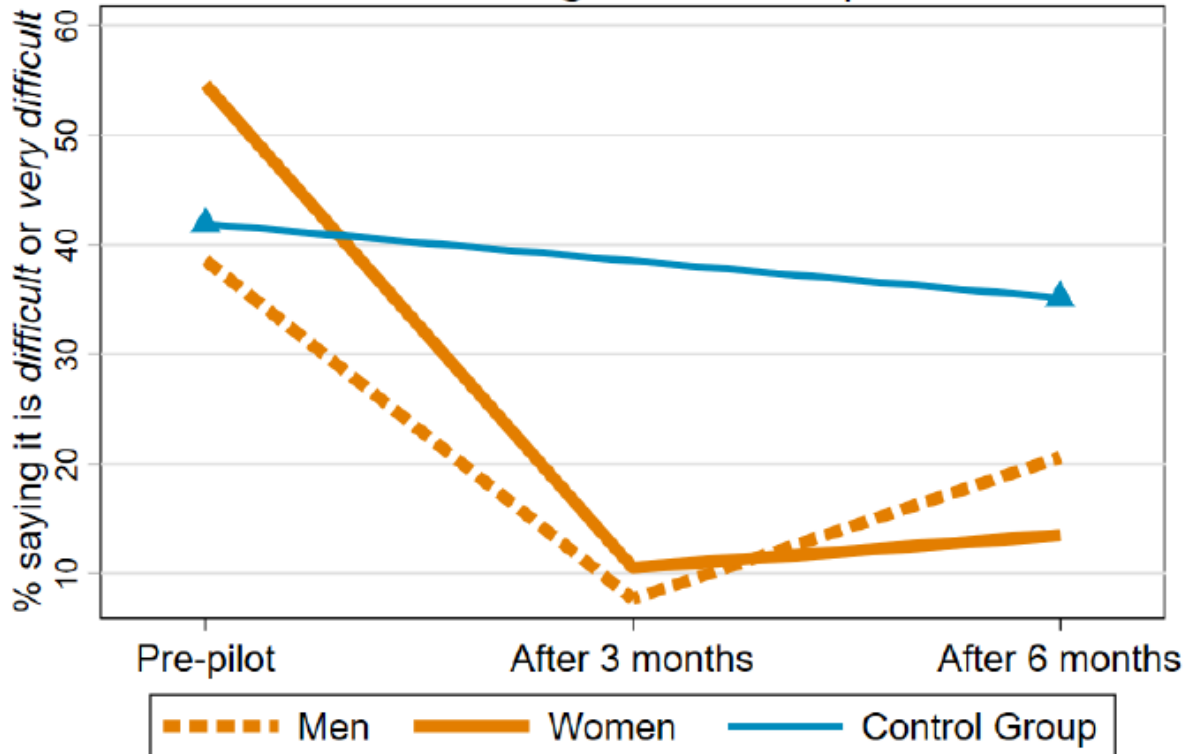
Life satisfaction





Workers

Difficulties in balancing work and personal life



Better mental and physical health,
Reduction of negative symptoms of
mental health, fatigue and exhaustion.

More sleep,

Better life satisfaction,

Reduction in the difficulties balancing work
and family life.





Workers

VALUE ATTRIBUTED TO THE 4-DAY WEEK

28% OF
SALARY



Value that workers give as a % of salary

	CATEGORY	VALUE
GENDER 	MALE	21
	FEMALE	32
CHILDREN OR STEPCHILDREN 	WITH CHILDREN OR STEPCHILDREN	32
	WITHOUT CHILDREN OR STEPCHILDREN	24



SCHOOLING

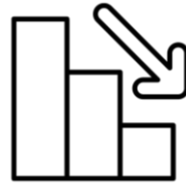


SALARY LEVELS

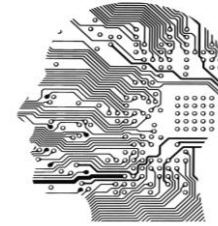


WITHOUT HIGHER EDUCATION	37
BSC.	29
MSC. OR PHD	24
LESS THAN 1100€	33
MORE THAN 1100€	24

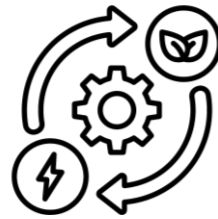
1. Productivity
Slowdown



2. Artificial
Intelligence



5. Green
Transition



**Biggest
Challenges**








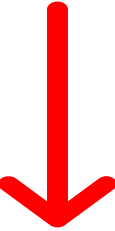


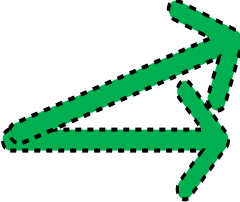

3. Demographic
changes



4. Rise of
Populism



Direct effect

			
Economists Degrowthers 			
My view			

Some decoupling: 1. Less Commuting
2. Less carbon intensive consumption



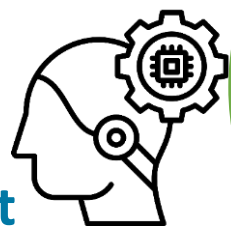
Indirect effect

Higher
Productivity



Higher
Wages

Lower
Technological
Unemployment



Lower
Inequality

Better, more
inclusive and
sustainable
economy

Improved
Wellbeing

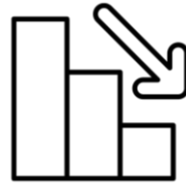


Healthier, longer
working lives

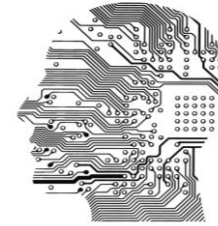
Climate
Action



1. Productivity
Slowdown



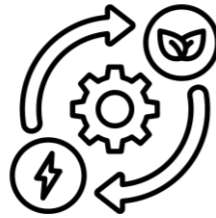
2. Artificial
Intelligence



**Four-Day
Week**



5. Green
Transition



4. Rise of
Populism



3. Demographic
changes



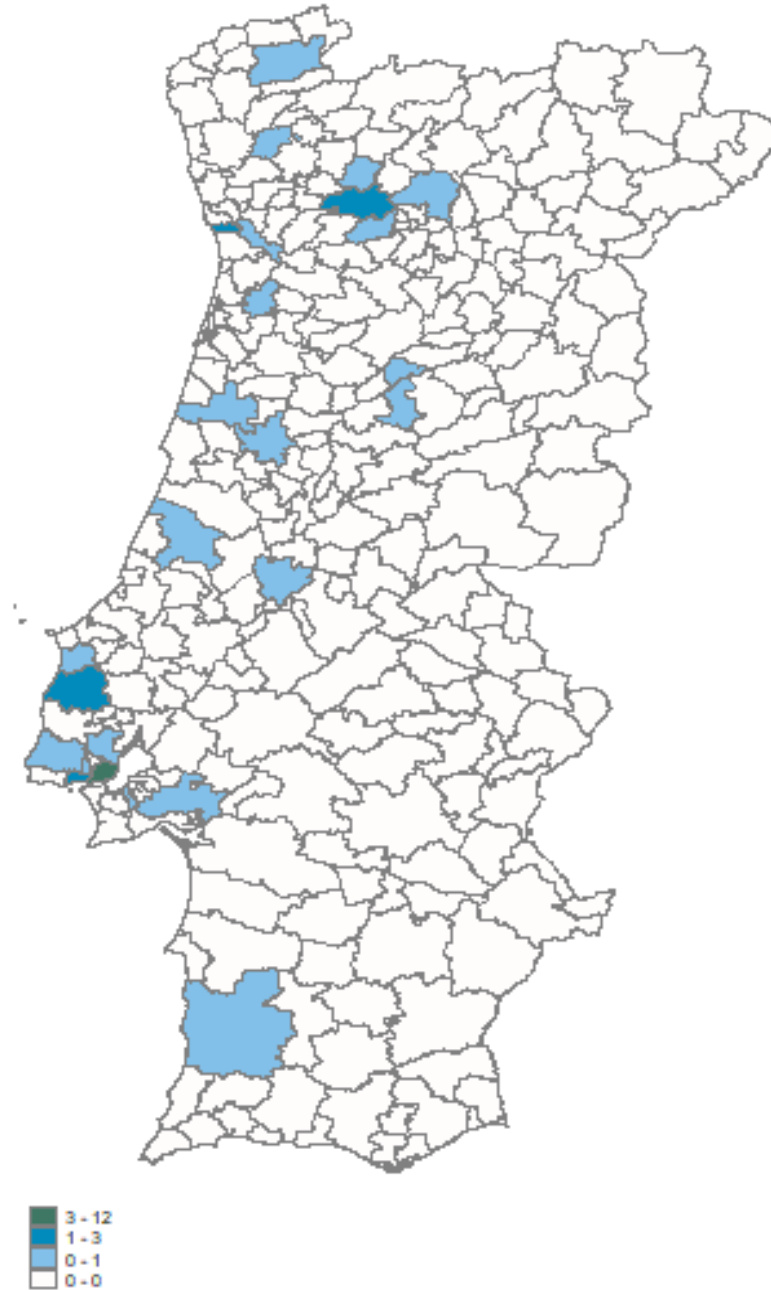
Q&A



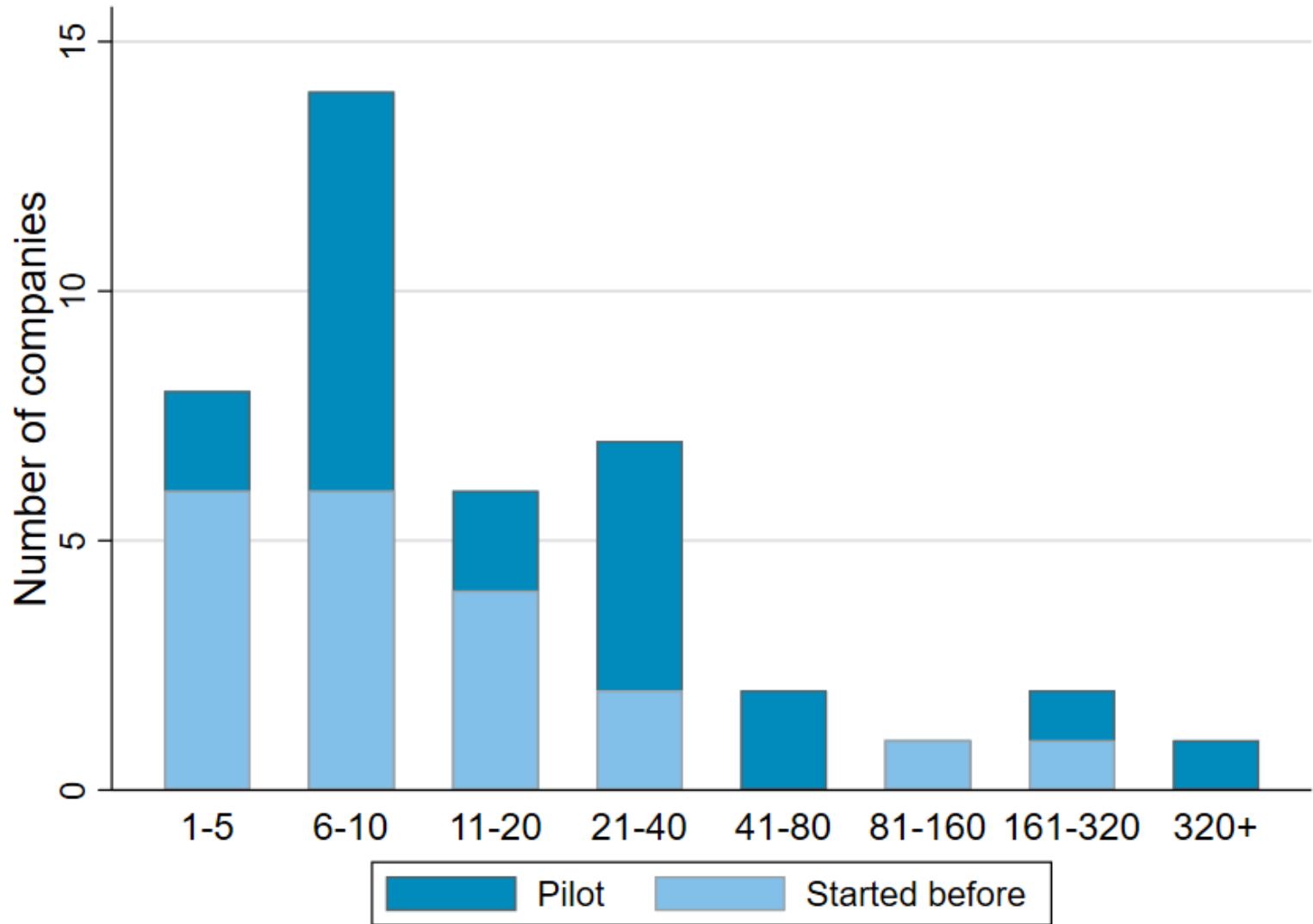


Portuguese Four-Day Week Pilot

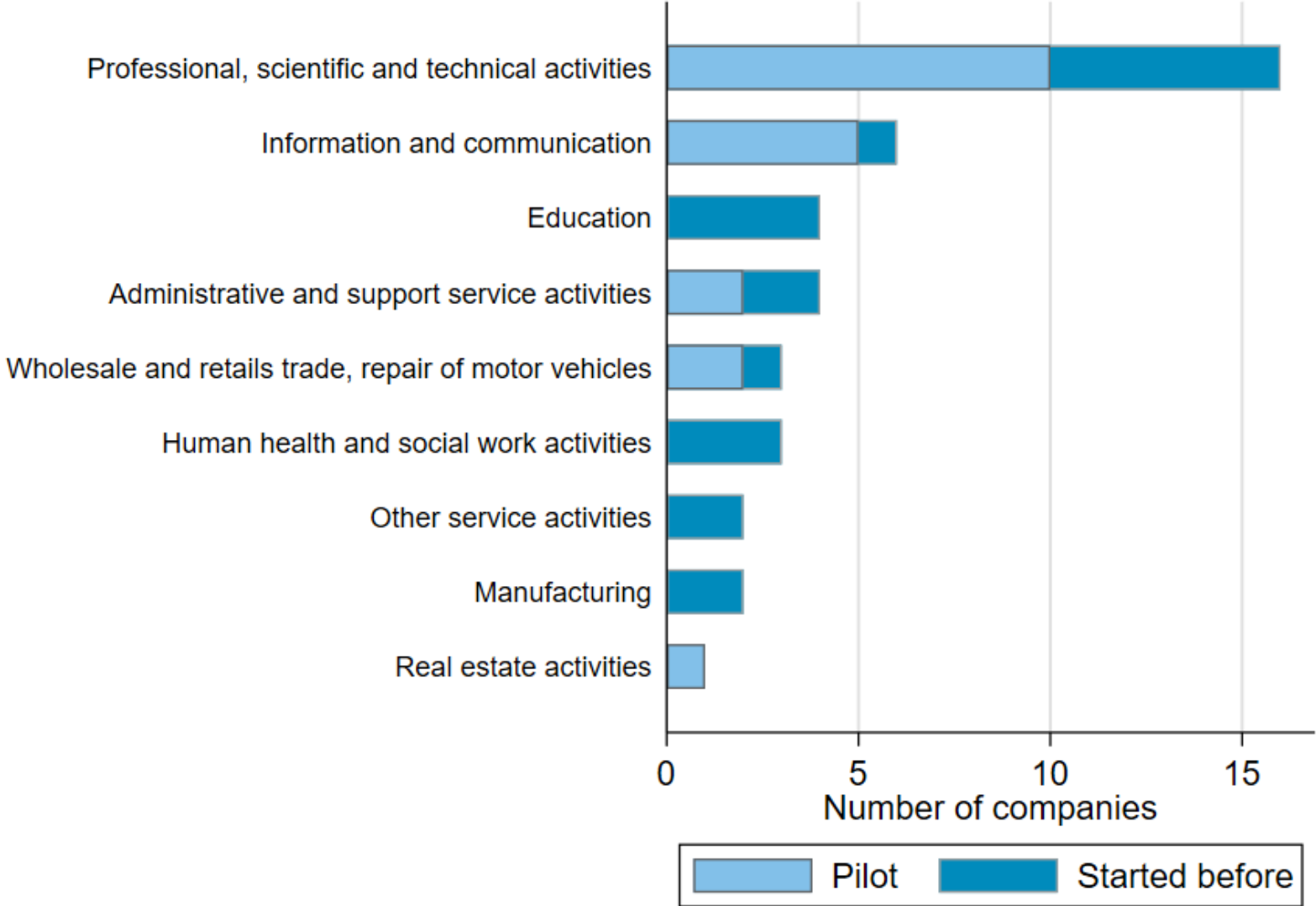
Characterization: location



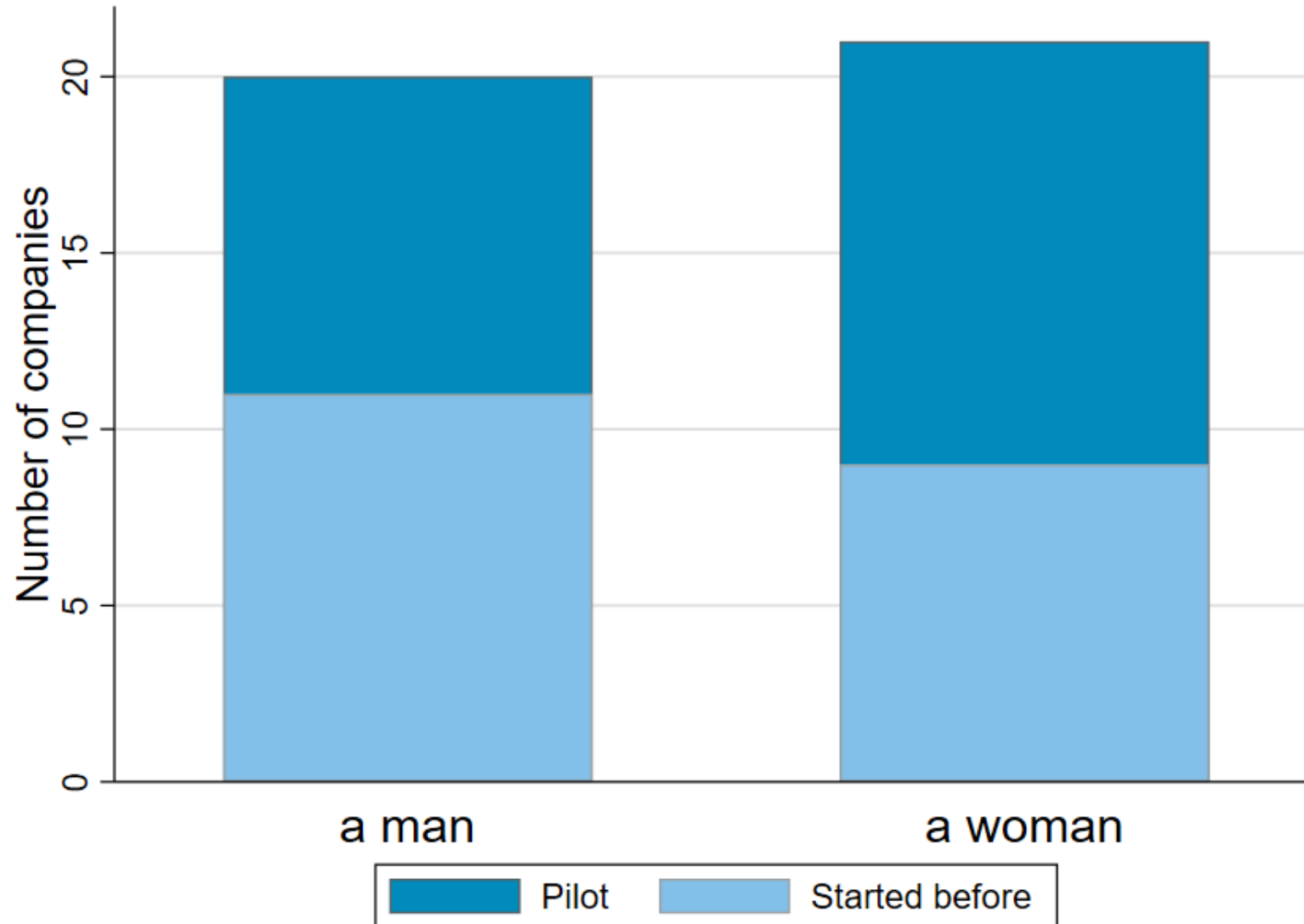
Characterization: size



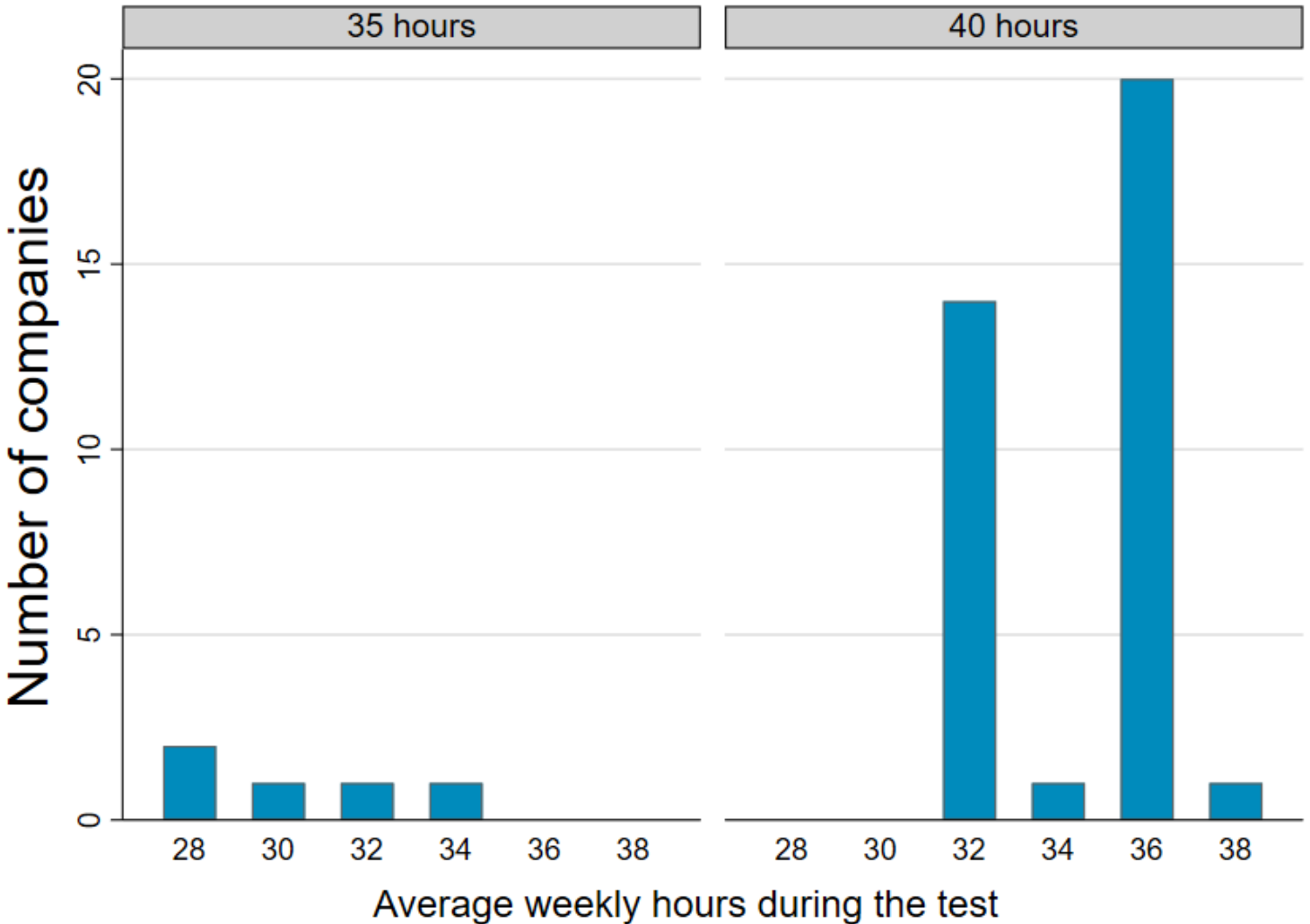
Characterization



Characterization: gender of leader

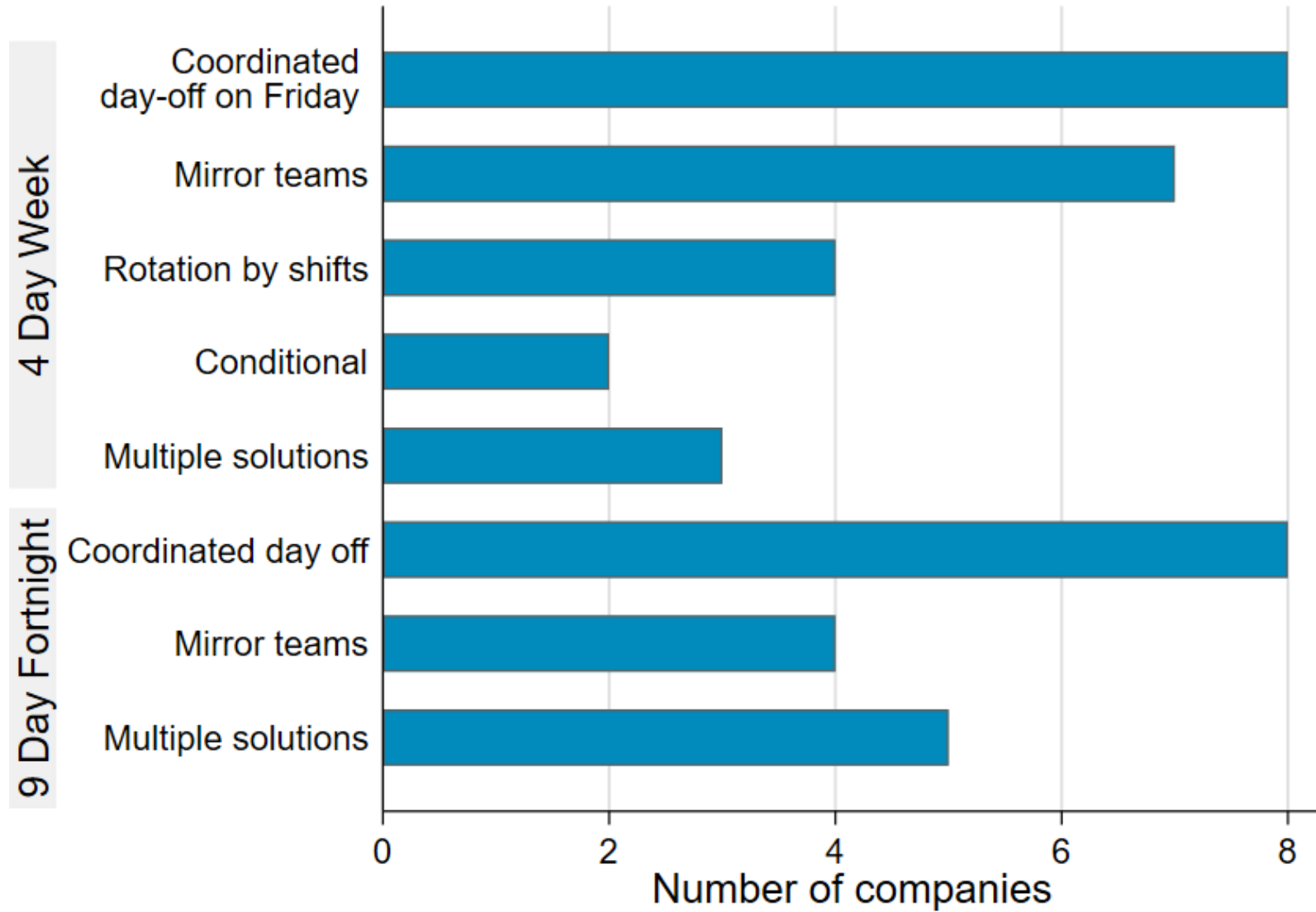


The reduction of hours?

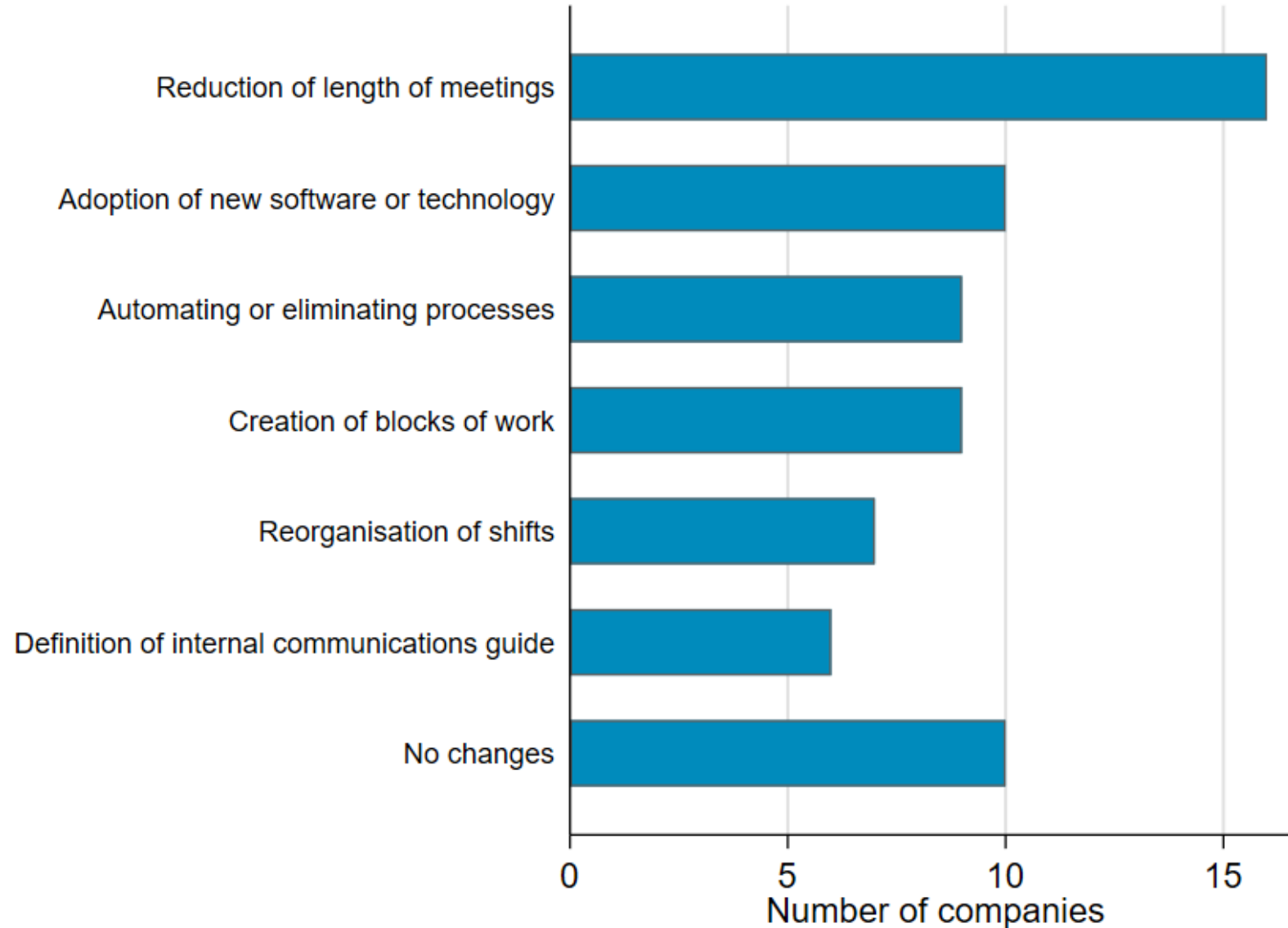


Average reduction of 13.7%
(12.3% among pilot participants)

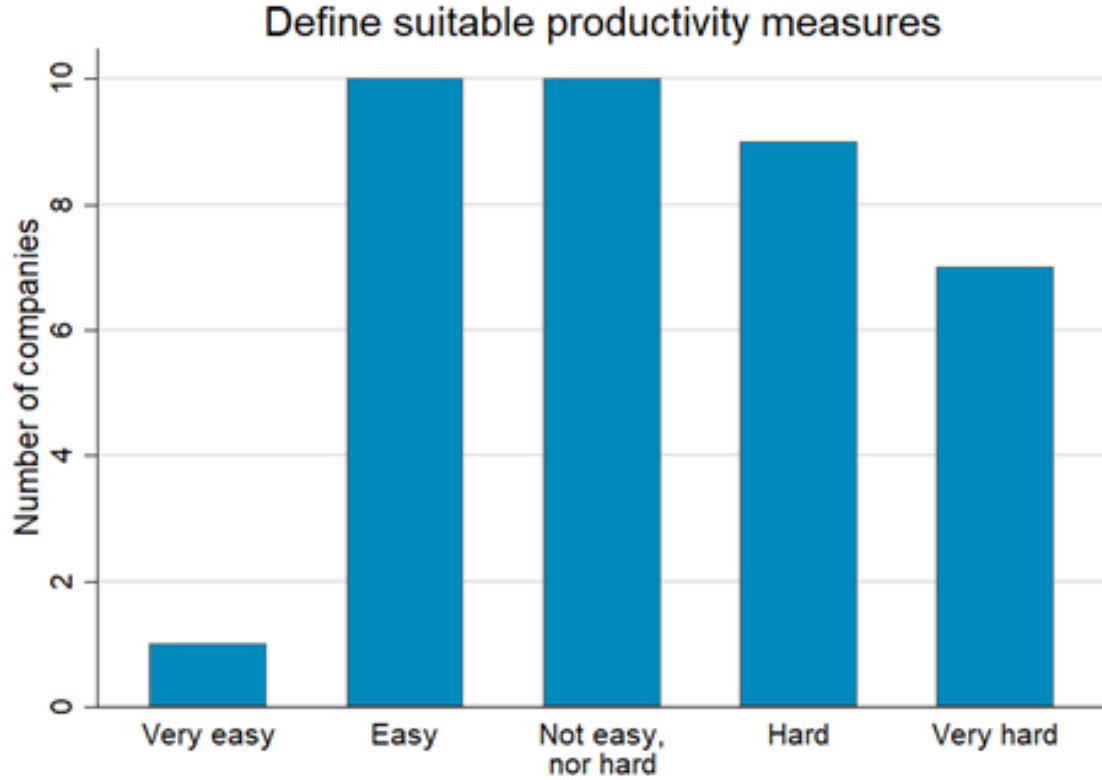
What format?



Which changes?

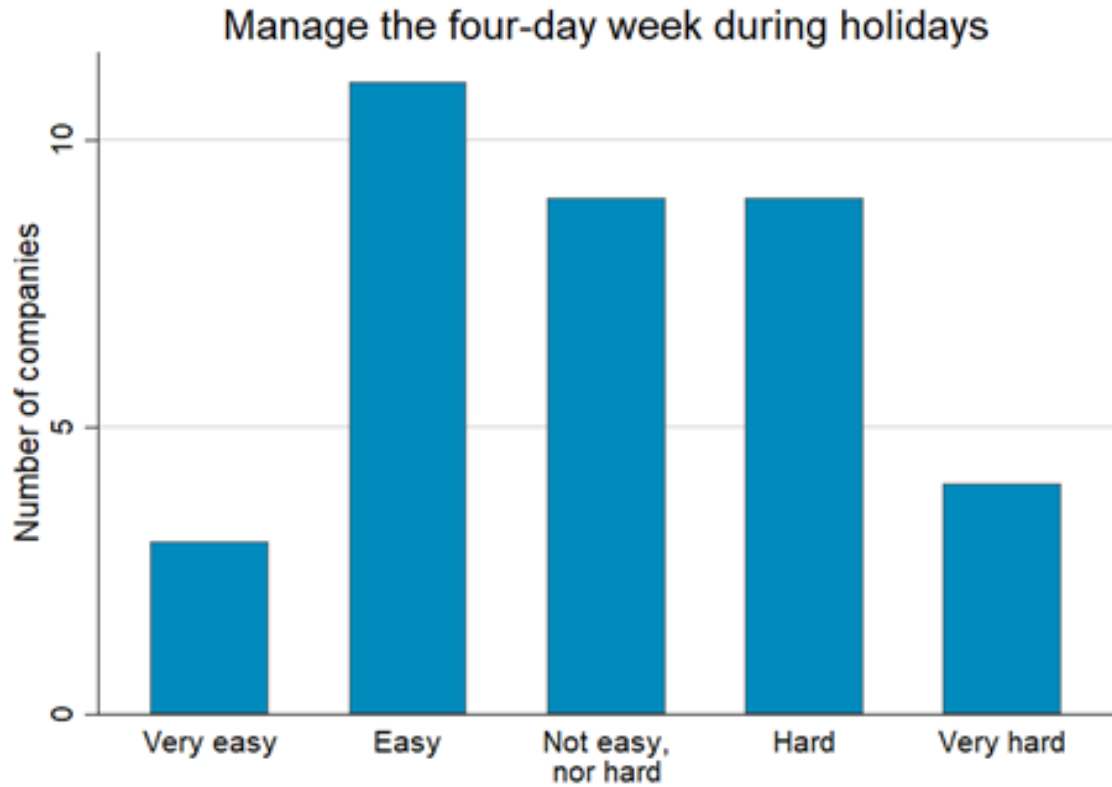


What was difficult?



1. Define productivity measures

What was difficult?



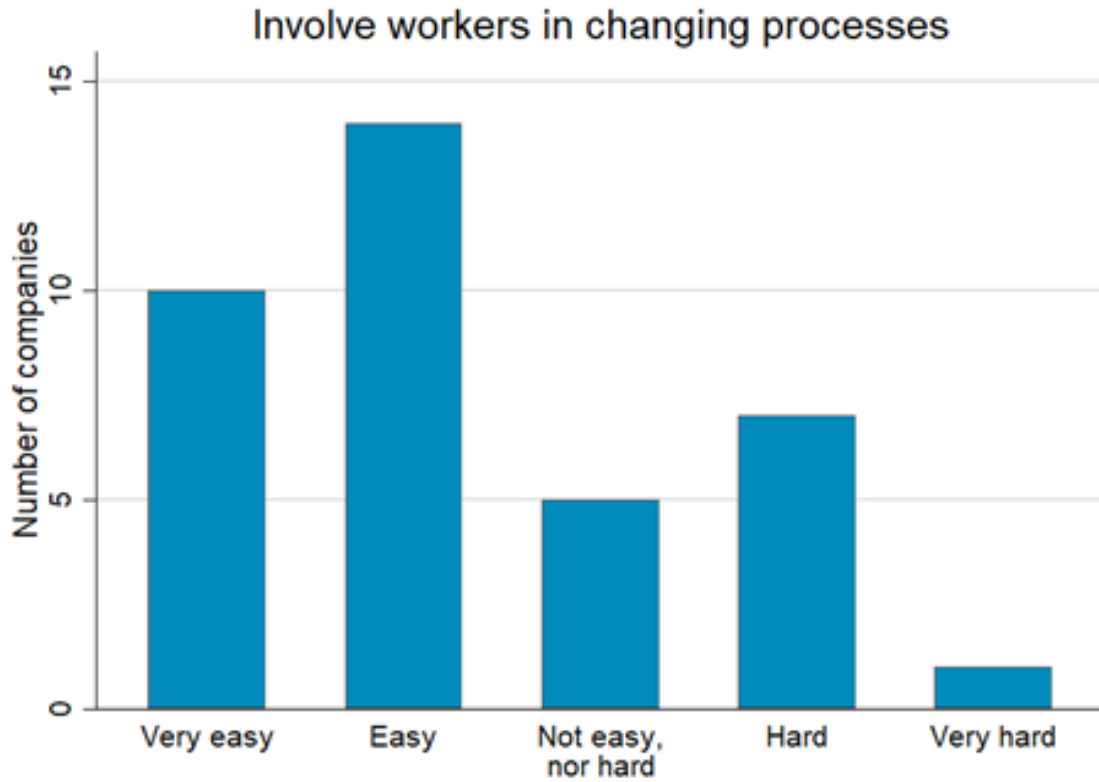
1. Define productivity measures
2. Manage holidays

What was difficult?



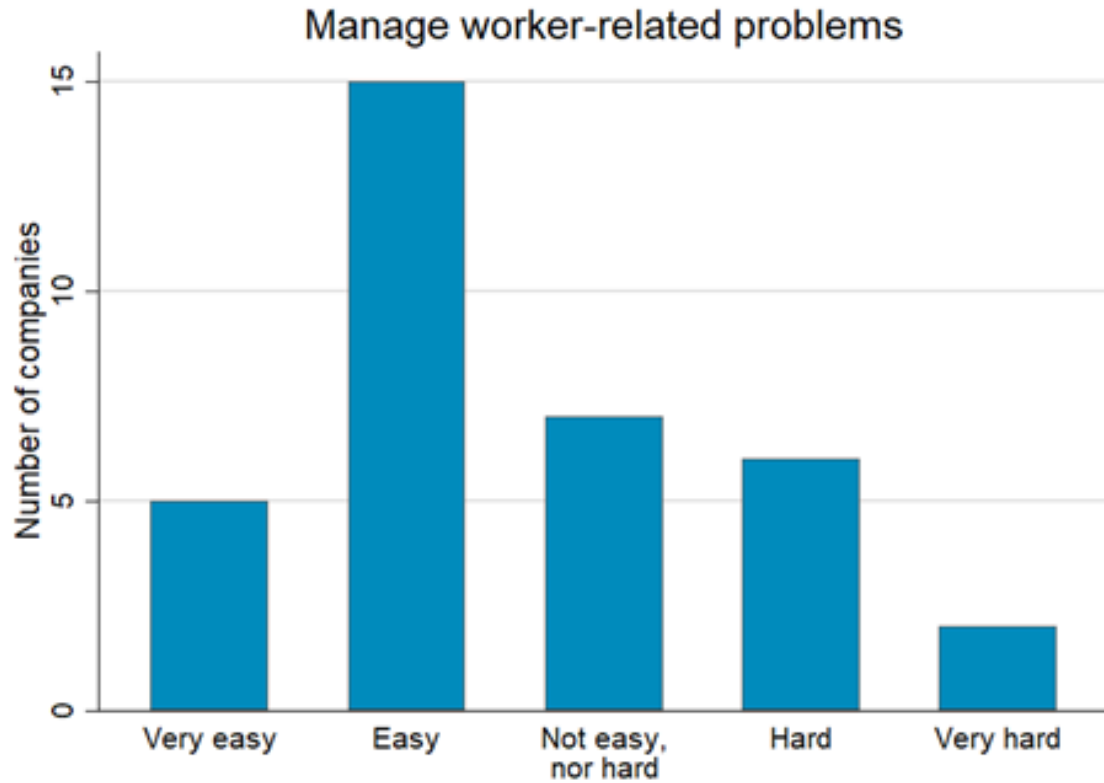
1. Define productivity measures
2. Manage holidays
3. Change the culture

What was easy?



1. Involve workers in the changes

What was easy?



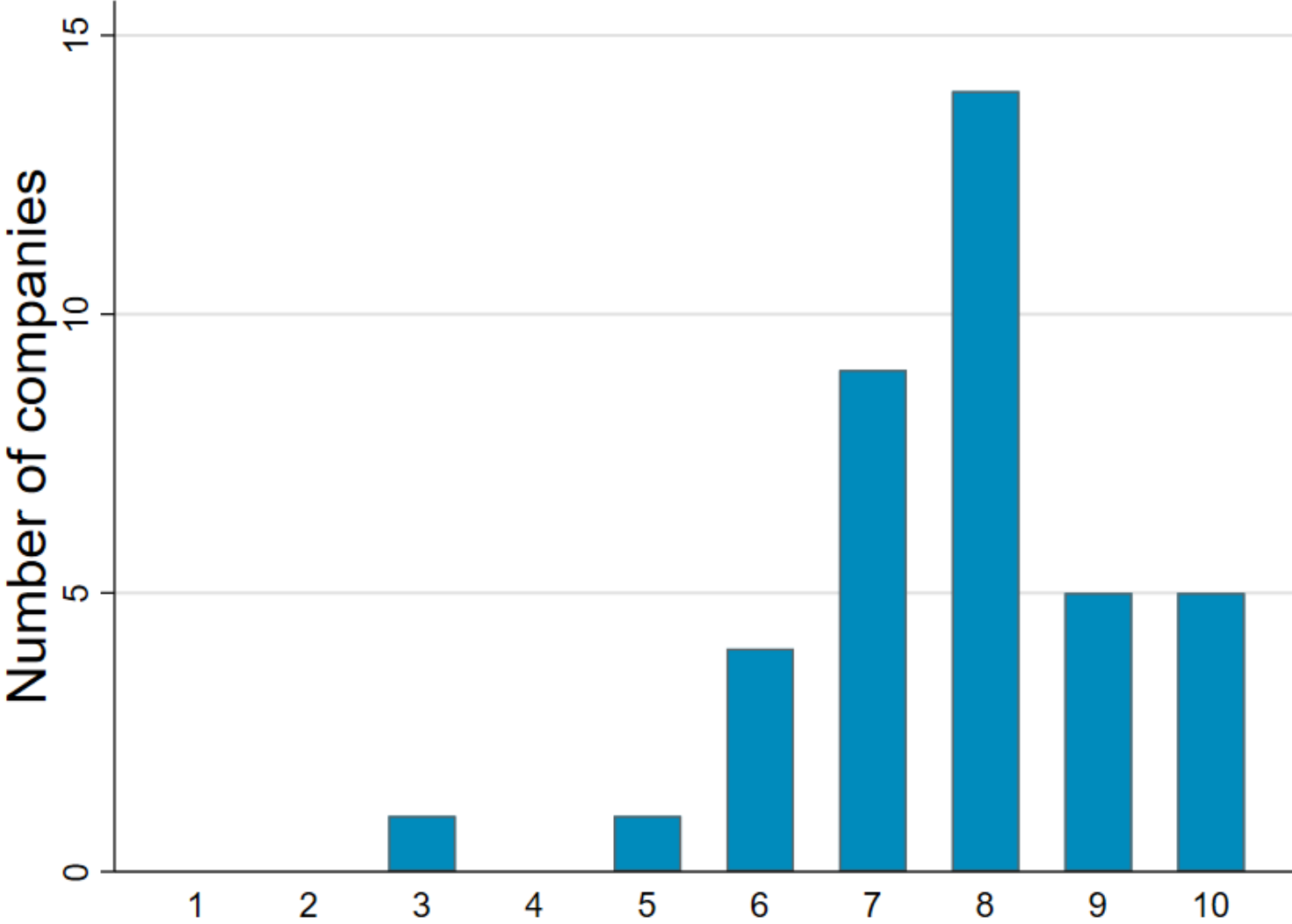
1. Involve workers in the changes
2. Manage worker-related problems

What was easy?

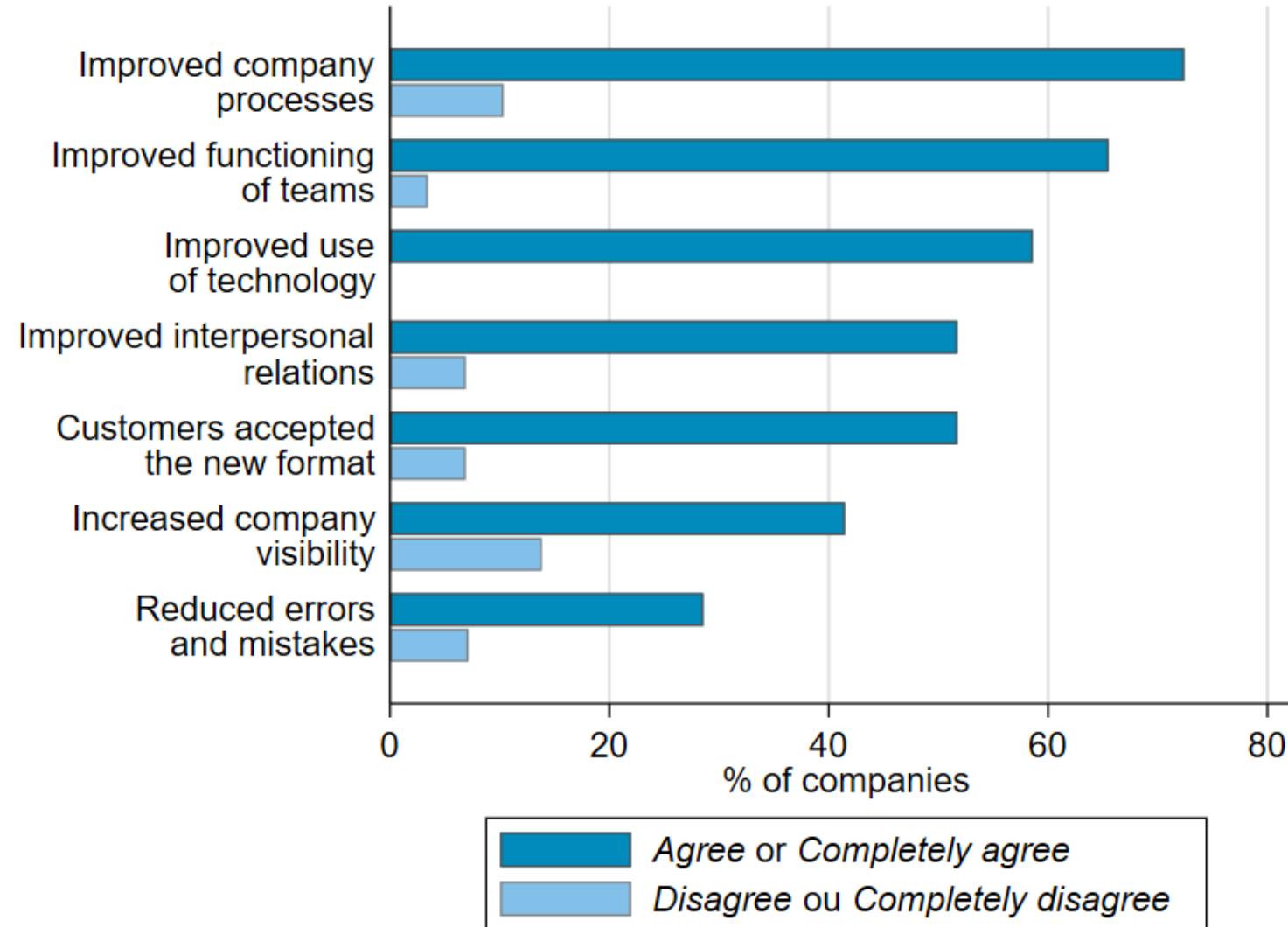


1. Involve workers in the changes
2. Manage worker-related problems
3. Communicate change to clients

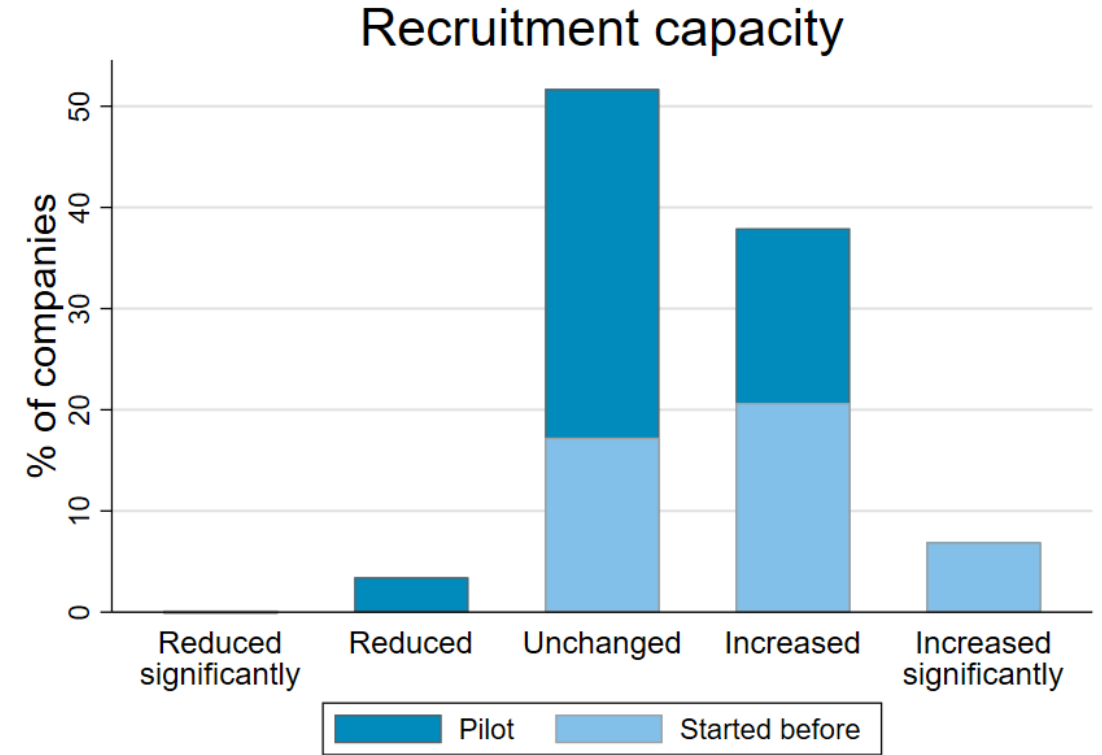
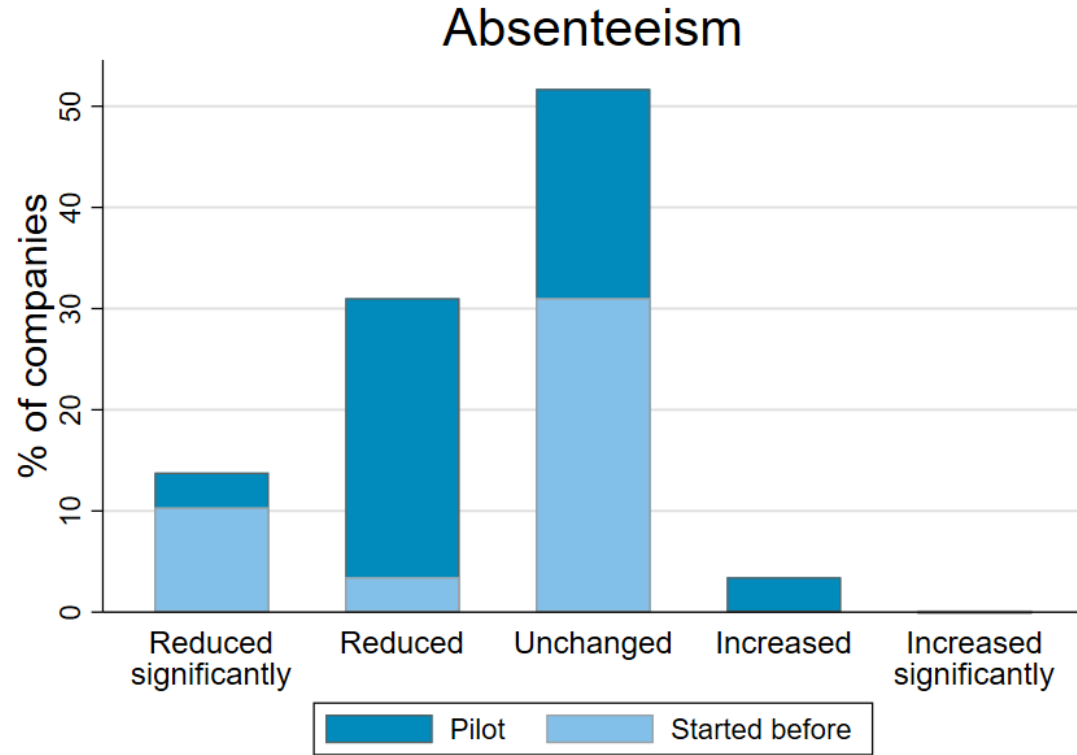
Evaluation after 3 months (1 to 10)



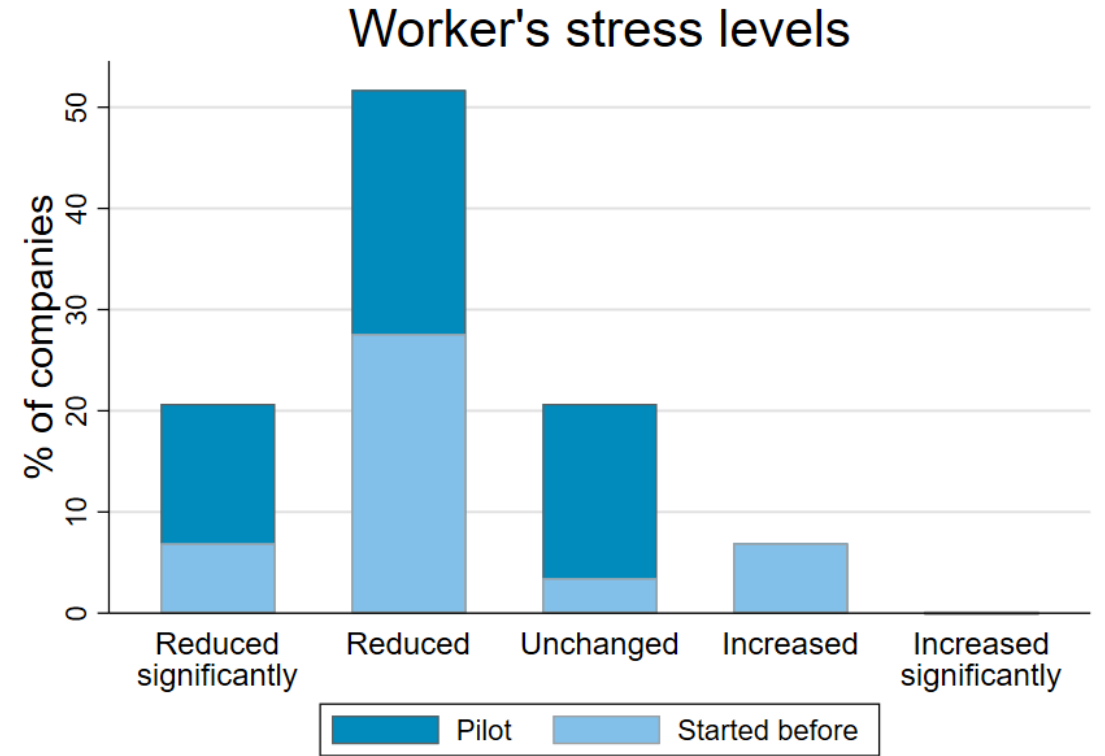
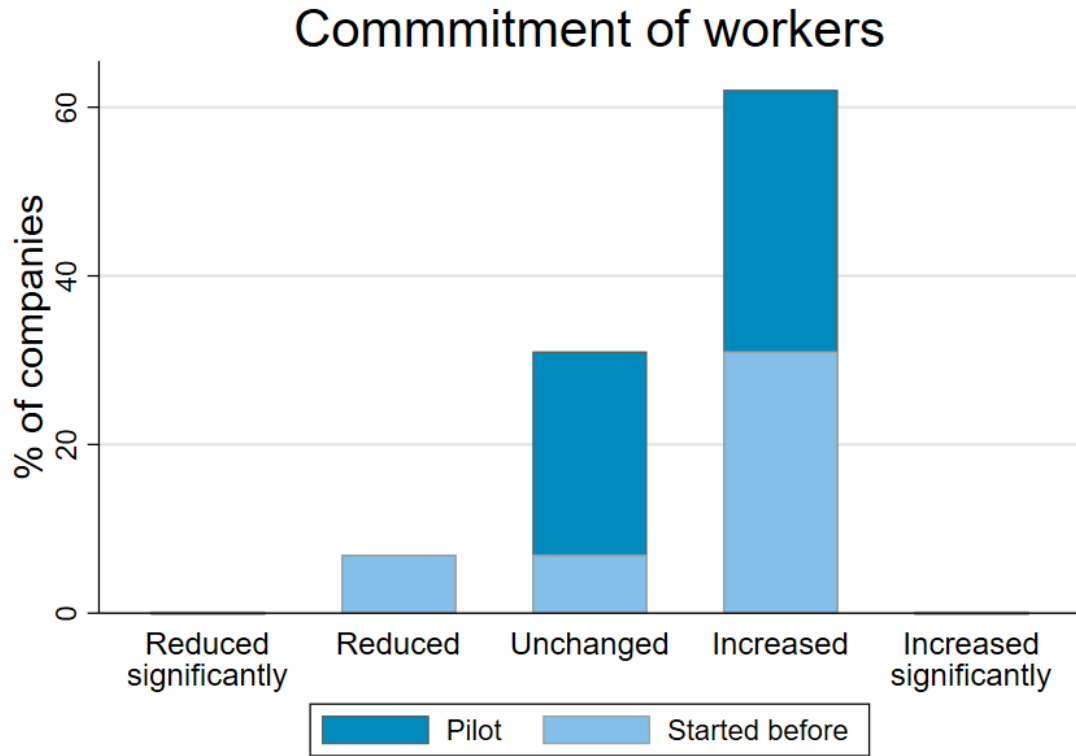
Operational impacts (after 6 months)



Operational impacts (after 6 months)

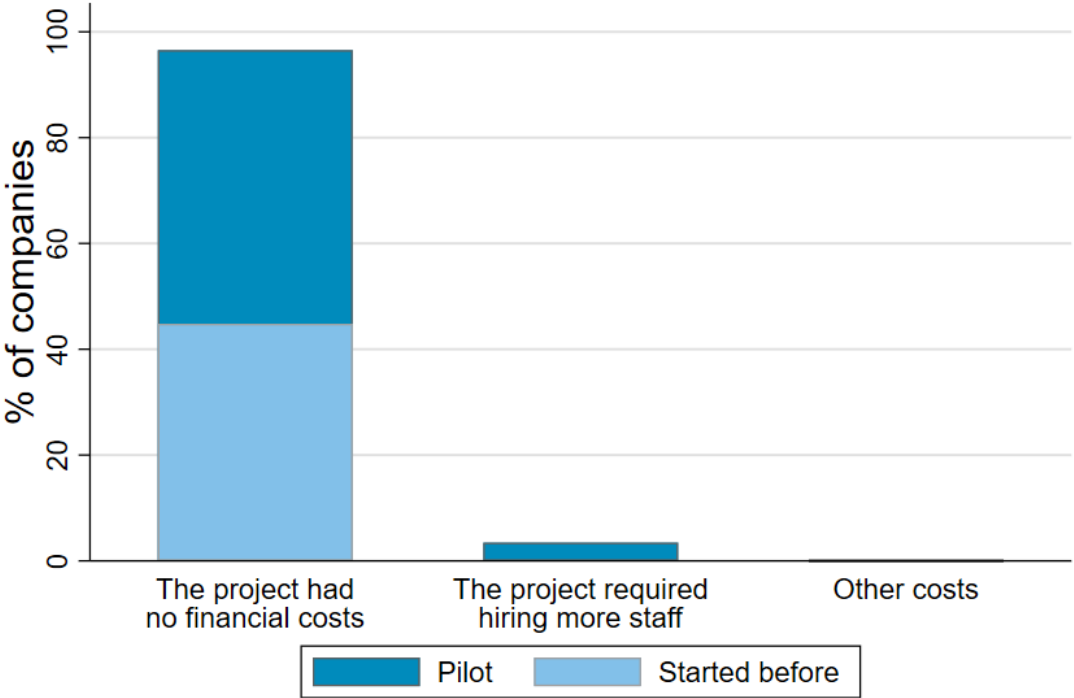


Operational impacts (after 6 months)

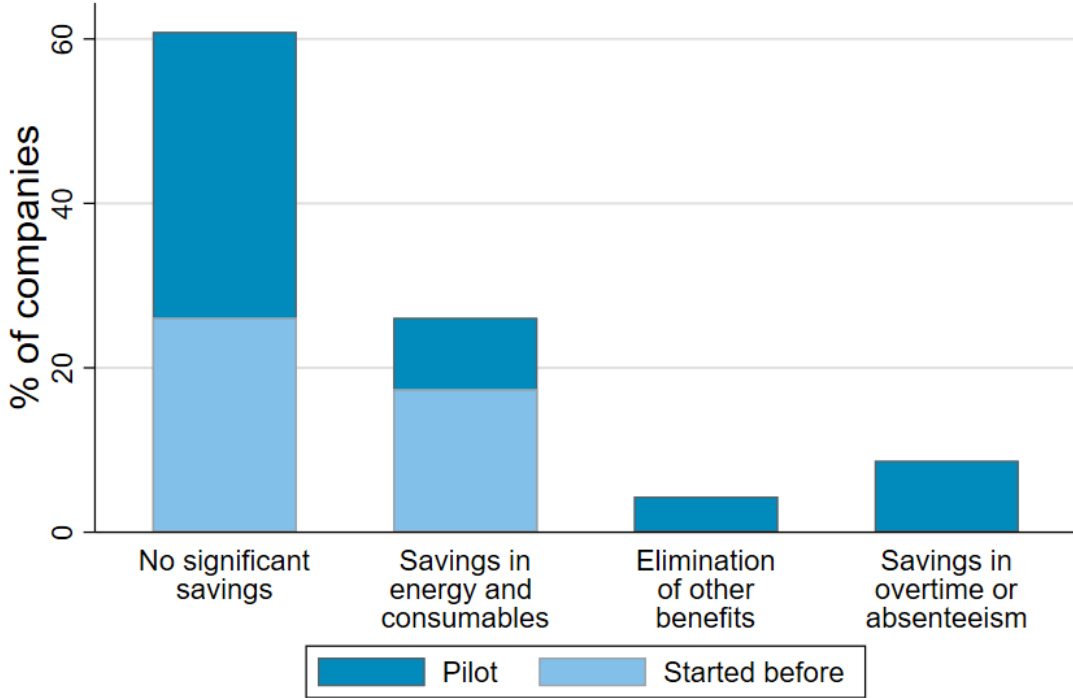


Financial Impacts: Costs and Savings

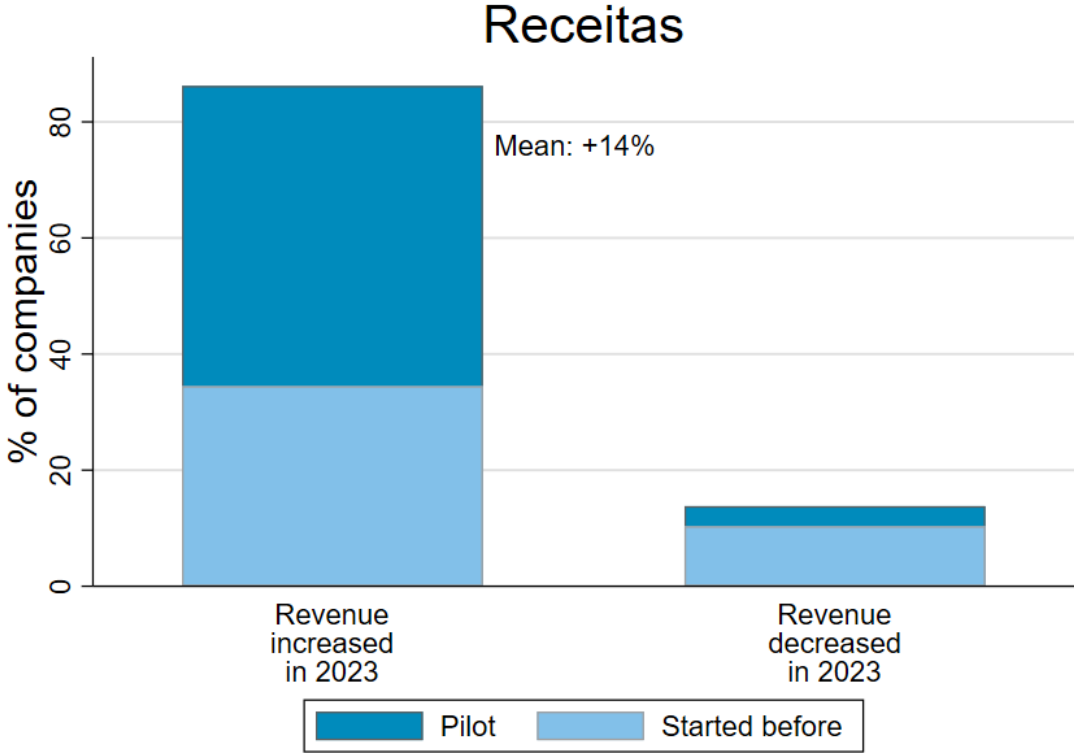
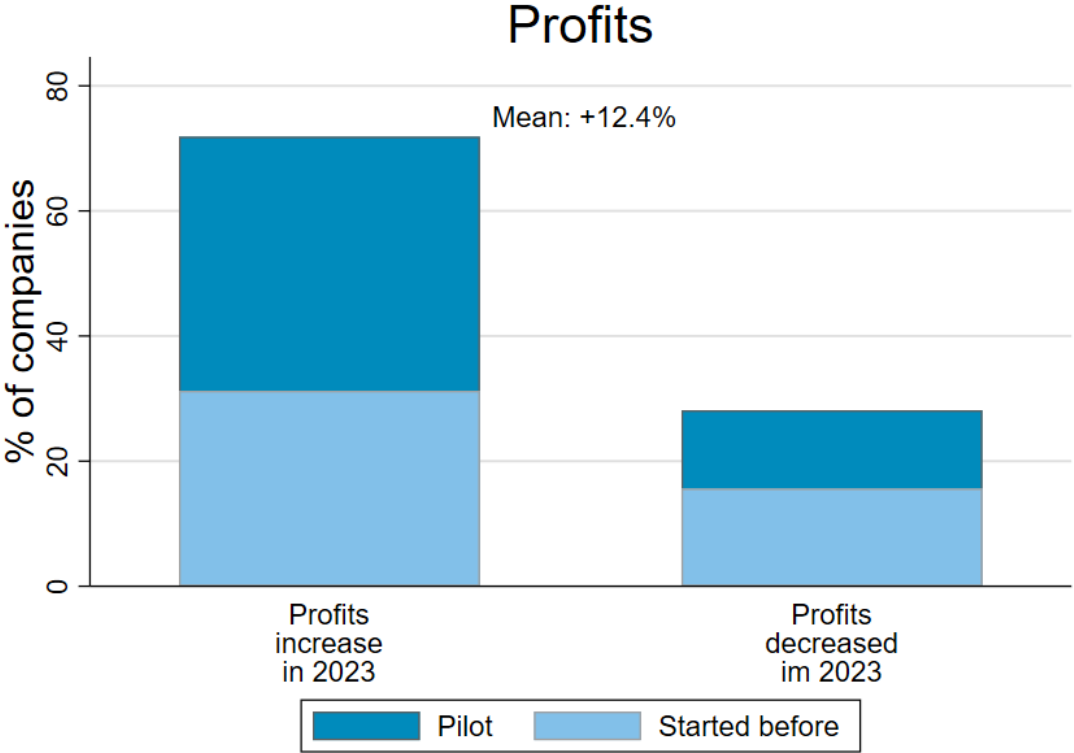
Costs of the project



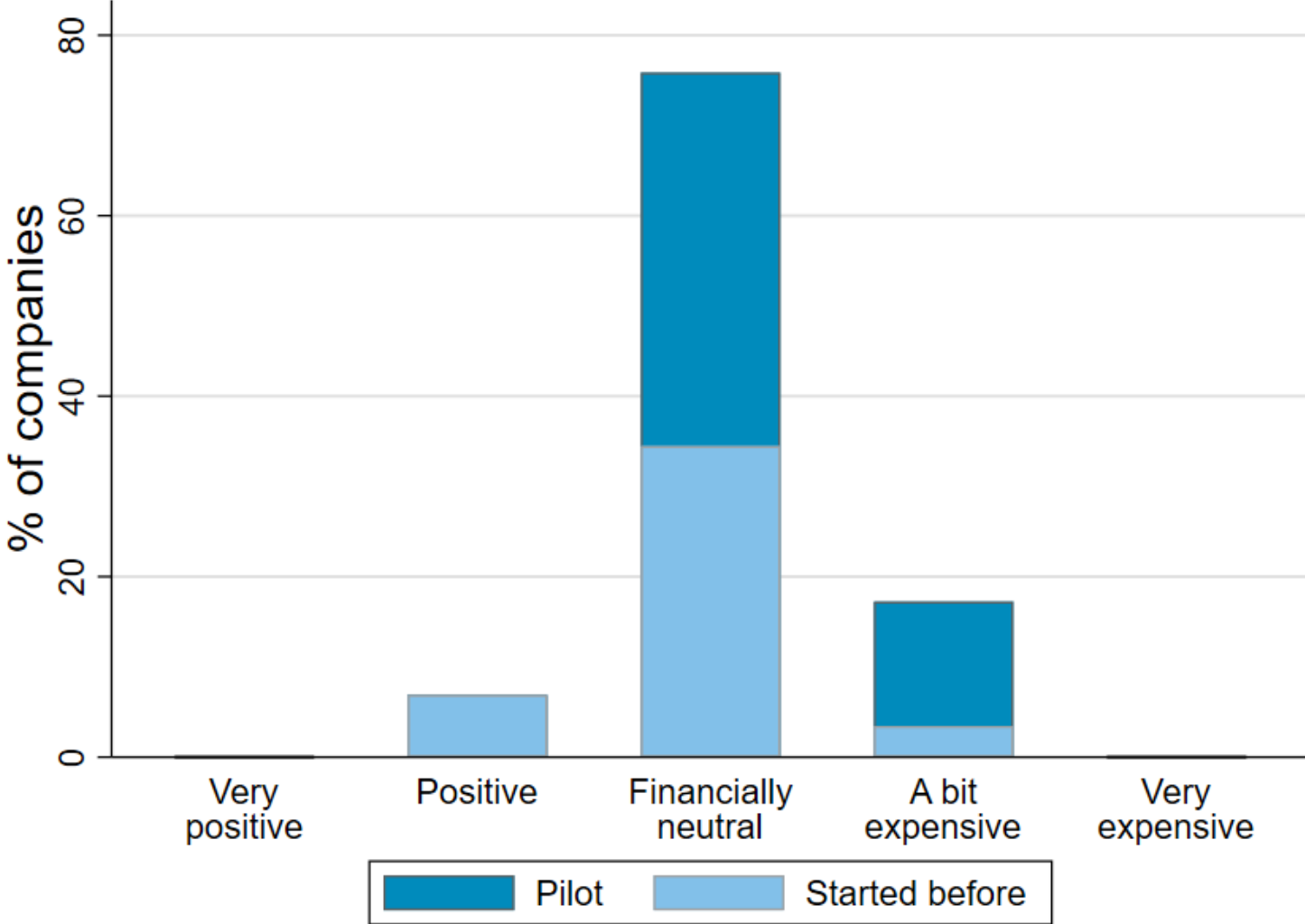
Savings from project



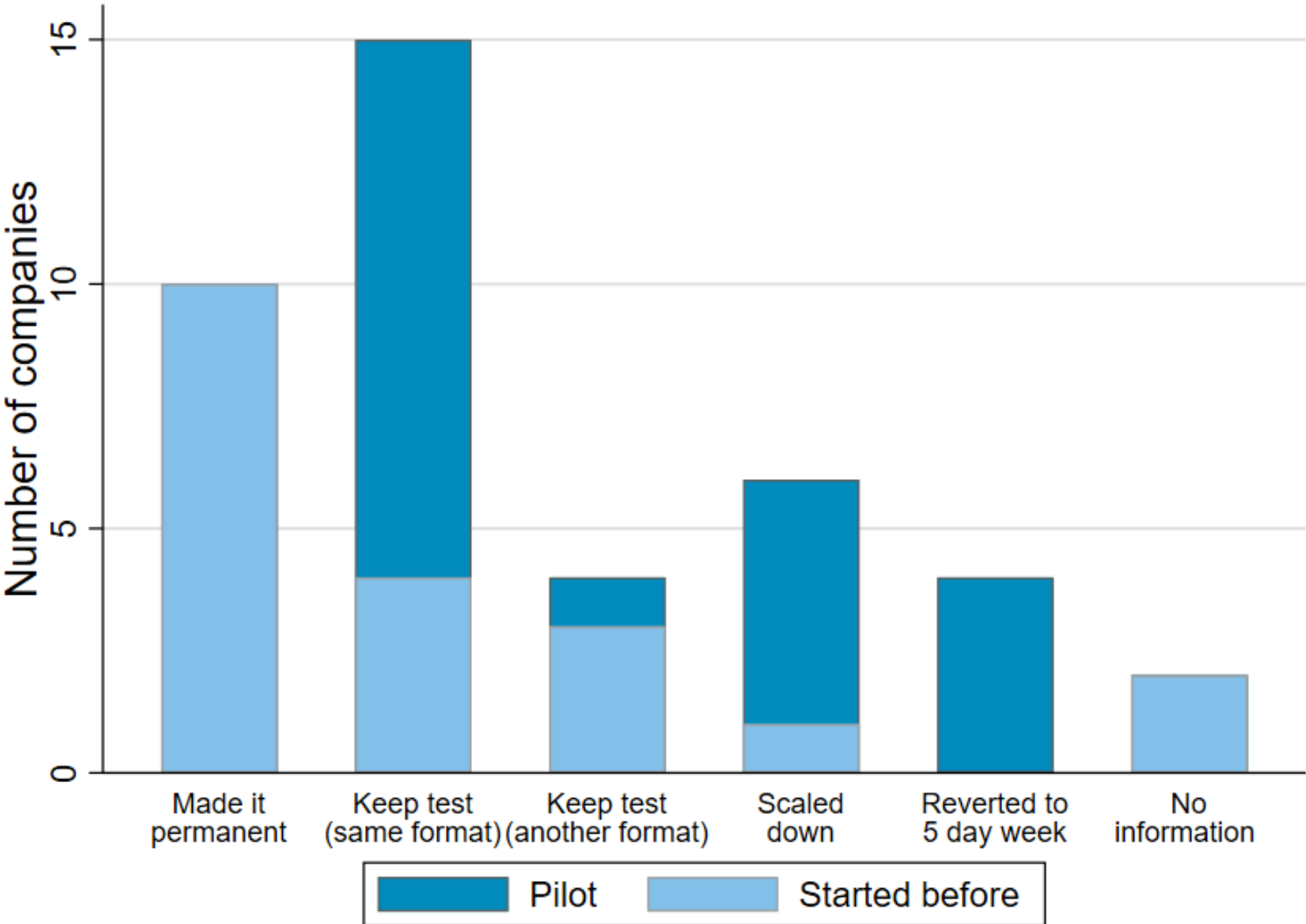
Profits and revenue



Financial evaluation



Final decision



Probability of reverting to 5 day week among pilot participants:

Changed 2+ processes: 8%

Changed 0 or 1 process: 37%

The criticism of the five-day week

“The shorter work week would prove to be nothing short of a calamity to the wage earners of the country.”

Harold Moulton, president of the Brookings Institution, 1936

Thinking about the effects of the four-day week

Wider social and economic effects



Arising from what people do in their free time, and effect of *coordination, externalities, and general equilibrium*.

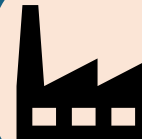


Workers



Value they attribute to the new format

Companies



Productivity and costs (+ or -?)



Contract

- Wage
- Hours



Wider social and economic effects



Economy

Increasing labour supply.

Increasing demand for leisure industry, entertainment, culture and tourism

Increasing “hybrid entrepreneurship”

Mitigating negative effects of technological progress

Society

Effects in fertility/family

Effects on global health

Effects on the environment

Effect in civic and political participation and polarization

Henry Ford

“Ford assembly-line efficiency had institutionalize technological and organizational factors, but had failed to control the human element (...) daily absences in Highland Park in 1913 amounted to 10%, the rate of labour turnover during the same year reached a stunning 370%.”

The People's Tycoon: Henry Ford and the American Century



1913: 5 Dollar Day
1926: **5 Day Week**



Rai 3 HD

4 GIORNI A SETTIMANA

PRESA DIRETTA
AUTO