How does part-time work affect productivity?

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About the author



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1. Implications of part-time work for productivity and profitability

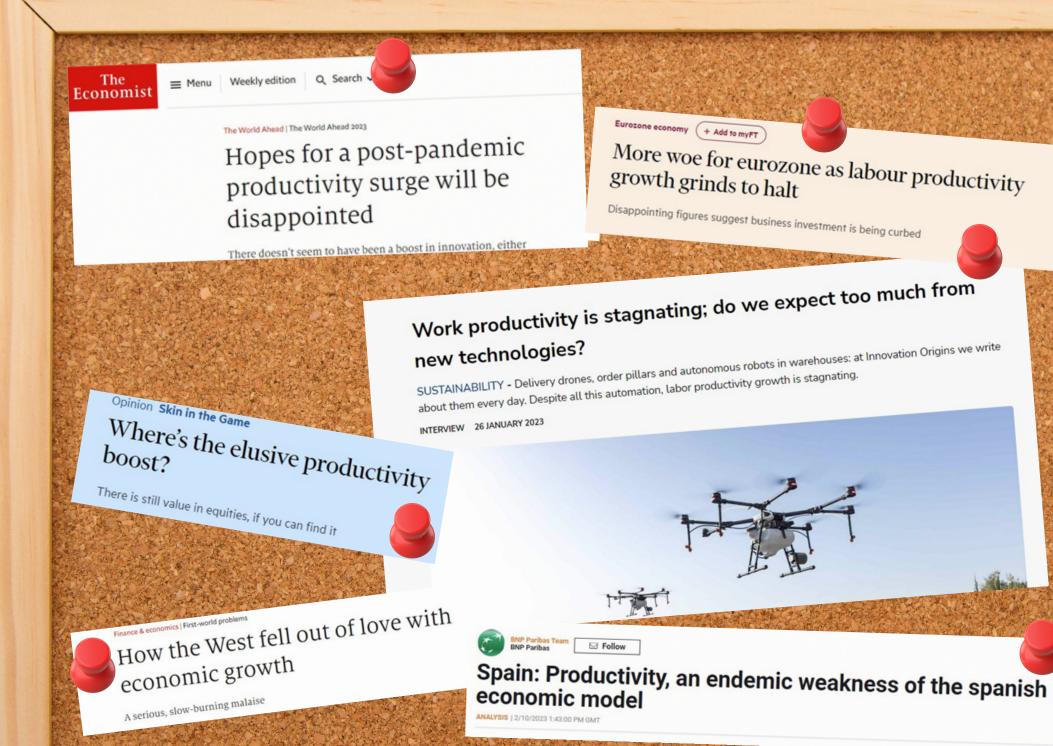




Part-time work is positively associated with firm-level labor productivity

A 10 percentage point increase in the share of employees working part time within a firm (e.g., from 20 to 30%) is associated with a 2% increase in firm-level labor productivity

- Firm-level labor productivity = gross added value per hour worked
- Effect is most positive for firms with less than 30% of employees on parttime contracts (effect seems to weaken beyond this point)





2% is highly substantial

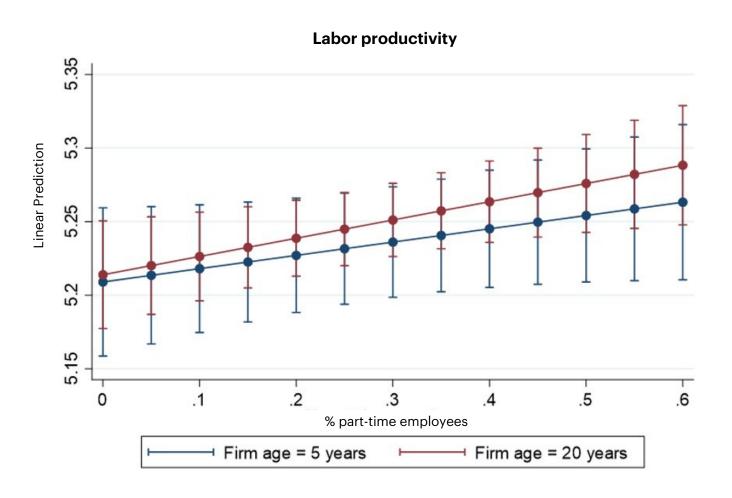
The average annual productivity growth in the European Union over the 2010-2021 period was 0.9% (OECD, GDP per hour worked)

Productivity growth is the most important driver of long-term income growth, directly influencing living standards, competitiveness and a government's scope to pursue policy

Source: https://data.oecd.org/lprdty/gdp-per-hour-worked.htm



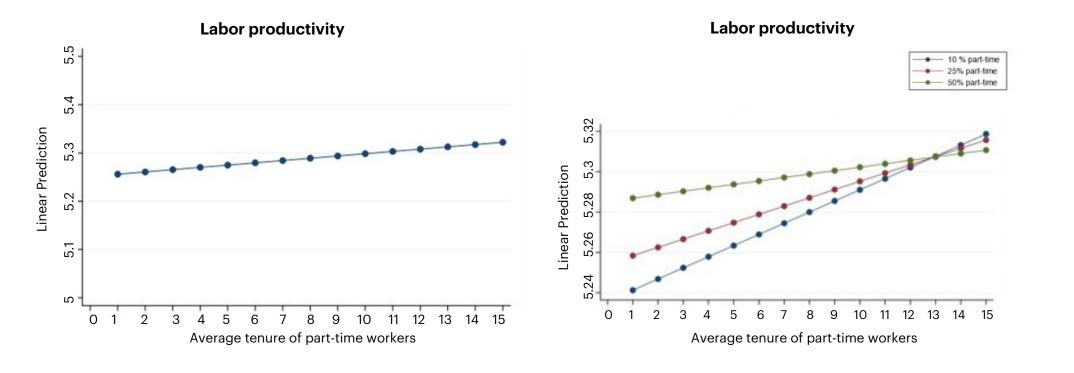
Part-time work equally as beneficial for older firms as for younger firms





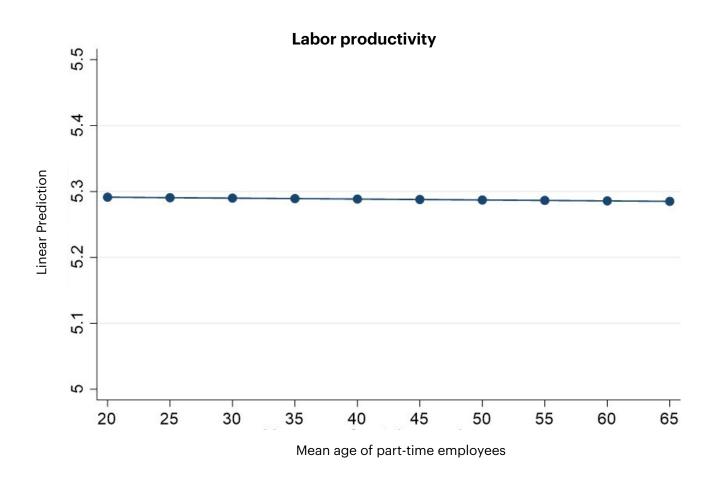
Part-time work is more beneficial for firm-level productivity when it's tenured employees who work part time

Unless part-time work is very common in the organization (i.e., above 50% of employees work part time), in which case, the tenure of the part-time workers doesn't seem to have an impact.





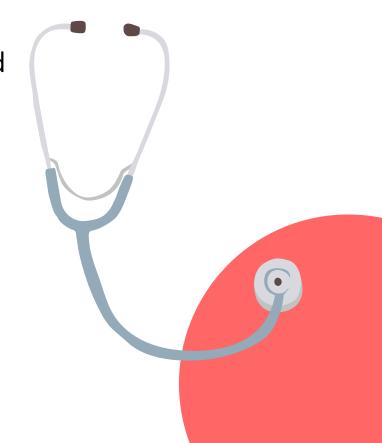
The age of the part-time workers has no influence on productivity





A negative relationship between part-time work and employee absence due to illness

A 10% increase in part-time workers is associated with a 3-7% reduction in total sick days per year



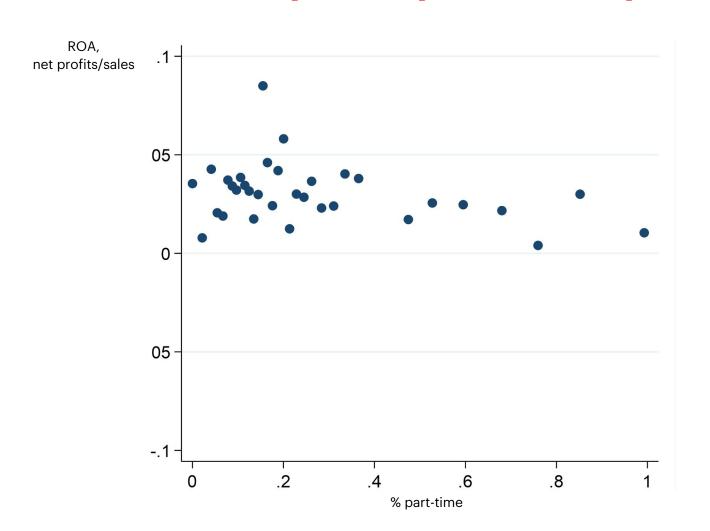


Substantial variation across industries

Industry	% employees part time	Effect of 10% increase in share of part-time contracts on labor productivity
Real estate activities	23%	4.9%
Professional, scientific and technical	14%	3.3%
Construction	11%	3.4%
Accommodation and food service	50%	3.1%
Information and communication (IT)	12%	2.1%
Wholesale and retail trade	39%	1.6%
Arts, entertainment and recreation	40%	1.6%
Manufacturing	22%	1.1%
Administrative and support services	42%	1.1%
Financial and isurance	24%	1.1%
Agriculture	19%	0.2%
Transportation and storage	20%	-0.5%
• Education	60%	-1.4%
Human health and social work	61%	-2.1%



While working part-time increases labor productivity, there is no relationship with profitability





2. Part-time work: determinants and trends

- · Who?
- What kind of firms?
- Which industries?





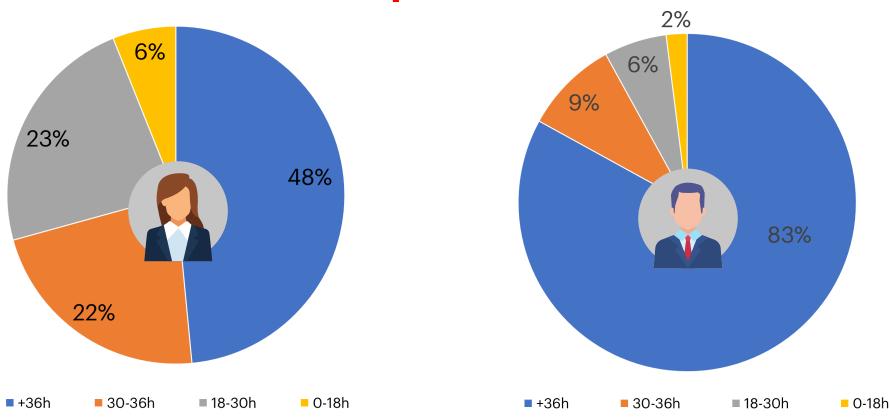
Within the sample

52% of women

versus

17% of men

work part-time



Note: Employees were considered to have full-time employment if they worked at least 36 hours per week.



Employee age

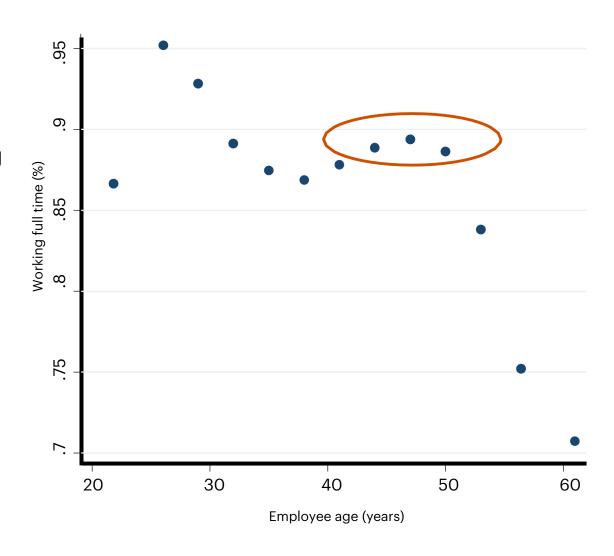
Part-time work is most common among employees above 50 years old.

Likelihood of full-time work declines from age 25 to 37, then picks up again after.

Major factors:

- Family demands and priorities (caring for children)
- Economic needs
- Moving into retirement

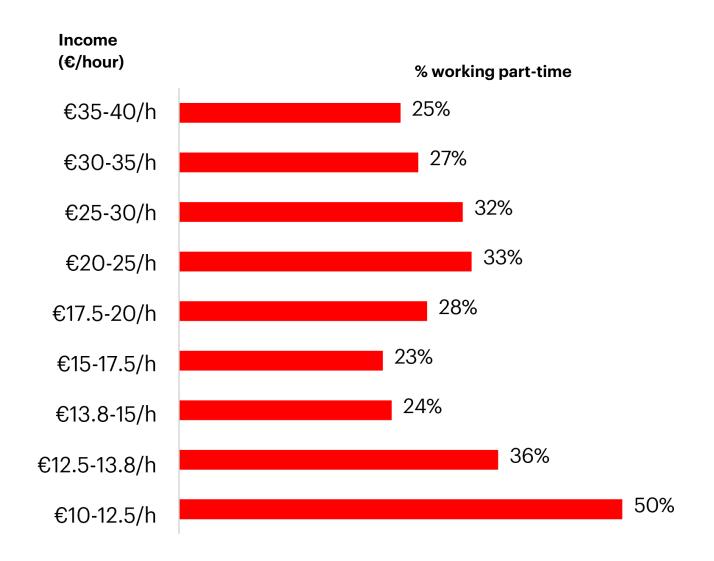
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Model controlling for differences in industry, province, year, company size, company age, white/blue collar, employee tenure, workforce composition



Relationship with income (€/hour)





Influence of company size, age and region

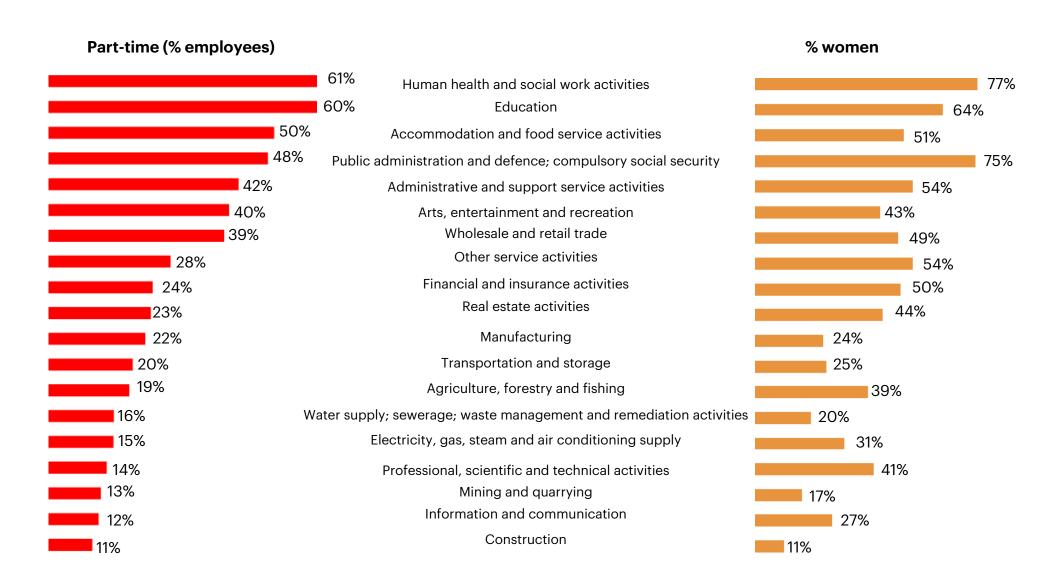
Part-time work more common in large firms

• Increasing from 20% of contracts in small firms (less than 10 employees) to about 30% in large firms (more than 500 employees)

Company age has no meaningful effect



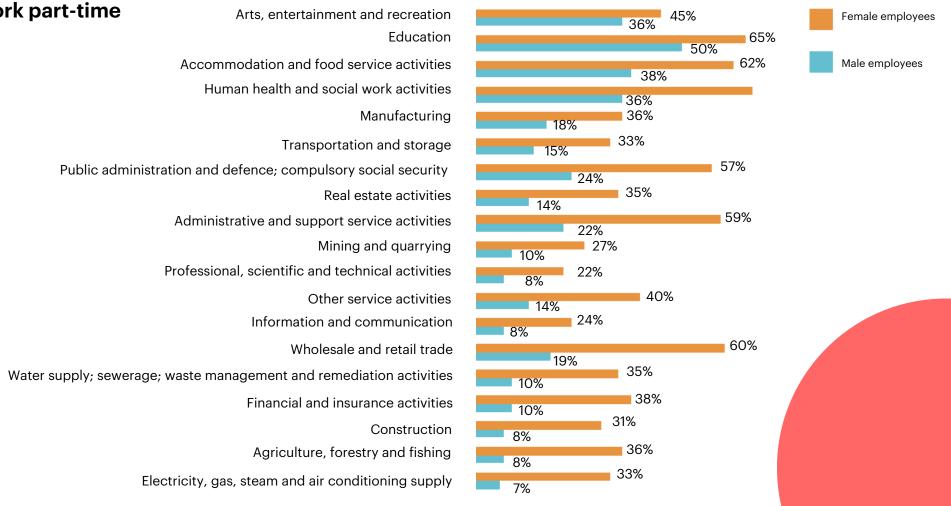
Part-time employment is least common in "male" industries





Percentage of female/male employees working part-time







3. Details on data sample, Belgian context, and prior literature





Sample

Data from 7,575 firms and 824,000 employees from 2016 to 2022

- Approximately 68% full-time employed
- 41% female, 59% male
- 37% blue-collar, 63% white collar (10% manager role¹)
- Average salary: 2,950 €/month (median: 2,620 €/m)

Average firm

- 804 employees (median: 309)
- €258M assets (€57M), €221M revenue (€81M), 3% ROA (3%)
- 35 years old (31y)

Has one of the following terms in job title: manager, chief, director, CEO, executive, team leader,...



workweek

Belgian context

General convention for full-time employment is a 38-hour workweek

- Differences depend on joint committee (commission paritaire)
- 40-hour workweek is also common extra hours are compensated with 12 days off per year
- 50-hour week is the maximum, in cases of extraordinary workload
- Part time = not full time and working a minimum of 12 hours/week

Average weekly working hours of Belgian part-time workers is among the highest in Europe

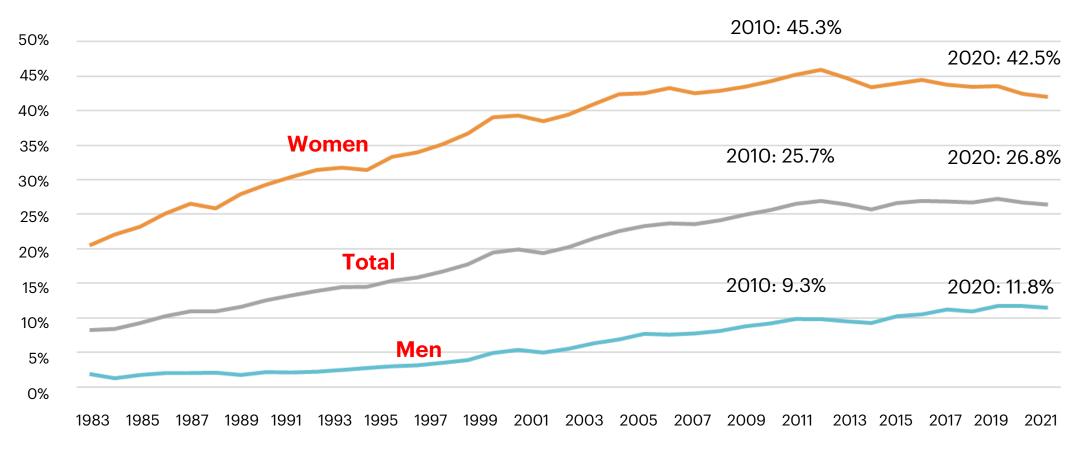
 On average a part-time job in Belgium represents about 60% of a full-time job (Eurostat)

Feb 22. New regulation allowing employees to request to work 38 hours in a 4-day workweek



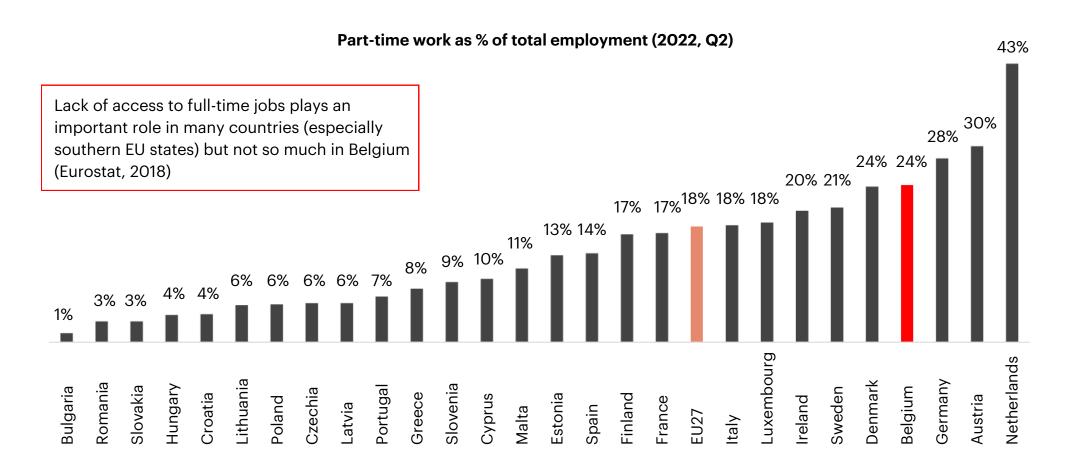
Popularity of part-time work has stabilized in Belgium, at least for women

% part time (% of salaried workers in Belgium)



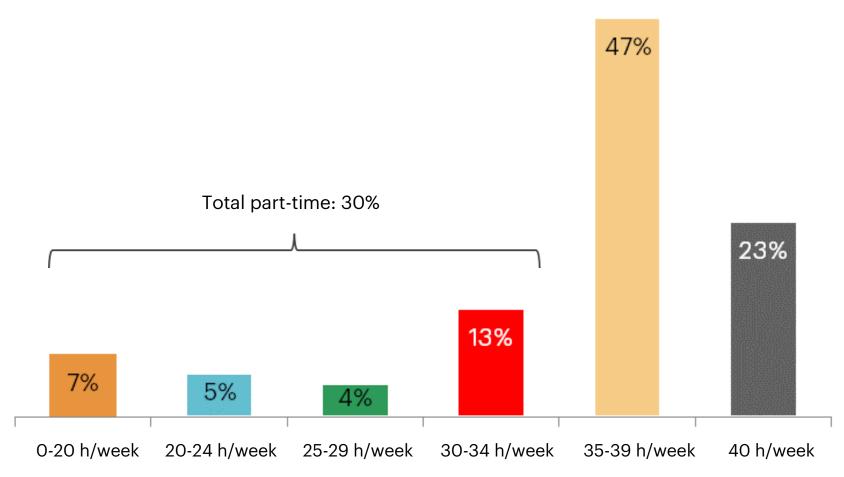


Part-time work is more common in Belgium than in most other EU countries



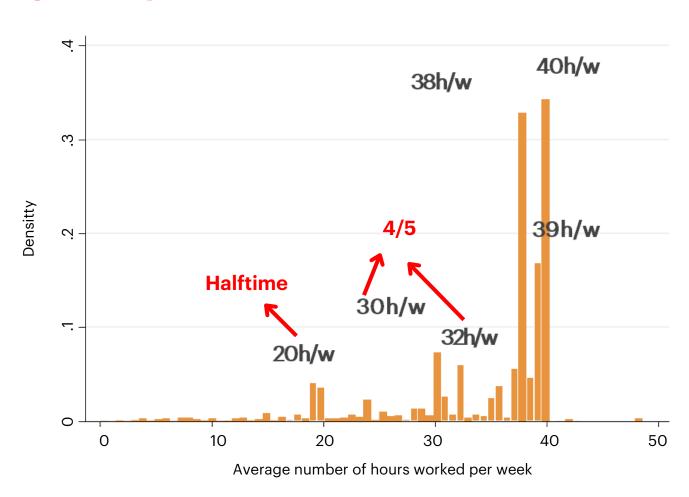


Almost 30% of employment contracts in the data are part-time contracts

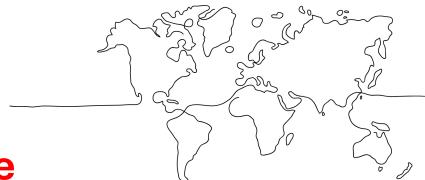




Part-time employees work either half time (~50%) or 4/5 (~80%)







% Part-time of total workforce

- The share of part-time workers in Spain was close to the EU27 average in 2022: 13.0% in Spain vs 14.8% in EU27
- Countries with the highest share of part-time workers are the Netherlands (36%), Indonesia (25.9%), Japan (25.6%), and Australia (25.5%). Germany also scores highly (22.2%), as does the UK (21.7%)
- Brazil (14.2%), Colombia (14.3%), Chile (16.6%) and Mexico (17.9%) are comparable to the average rate in the EU

The share of employees that work part-time has remained more stable in the last 10 years than expected:

- Only very few countries had a strong increase in part-time employment: Korea (from 10.6% in 2010 to 16% in 2022), Japan (from 20% in 2010 to 26% in 2022).
- In the EU27, the share of part-time work has remained relatively stable (from 15.1% in 2010 to 14.8% in 2022).
- Similarly in Spain (12.2% in 2010 to 12.9% now)



Breakdown by gender





- The gender difference (% of women who work part time vs. % men who work part time) is 15 percentage points in the OECD as a whole: 24.7% of women work part time vs. only 9.8% of men.
- In the United States (16% for women vs. 8% for men), and countries in the Nordics such as Finland (21% vs. 13%), Denmark (21% vs. 13%), differences between men and women are smaller than in countries such as Austria (36% vs. 9%), Australia (37.1% vs. 15%), Germany (36% vs. 10%) or the United Kingdom (35% vs. 11%).
- Overall, gender difference has remained surprisingly stable in the past 10 years.
 Trends towards more equity are most pronounced in the Nordic countries, the
 United Kingdom and Germany (even though the differences remain quite
 strongly in the latter two countries, as highlighted above).

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