

Working time: economic and social considerations

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What is the impact on employment?

Mostly no effect (“lump-of-labour” fallacy):

Study	Country/Year	Reform	Level of analysis	Impact on employment
Crépon and Kramarz (2002)	France – 1982	40 to 39	Worker	More separations*
Gonzaga et al. (2003)	Brasil – 1988	48 to 44	Worker	Null
Raposo and van Ours (2010)	Portugal – 1996	44 to 40	Worker	Ambiguous
Sánchez (2013)	Chile – 2001-05	48 to 45	Worker	Null
Estevao and Sá (2008)	France – 1998	48 to 45	Worker	Null
Varejao (2005)	Portugal – 1996	44 to 40	Worker	Null**
Kawaguchi et al. (2017)	Japan – 1997	44 to 40	Worker	Negative***
Crépon et al. (2004)	France – 1998	39 to 35	Worker	Ambiguous
Lopes and Tondini (2022)	Portugal – 1996	44 to 40	Worker	Null
Hunt (1999)	Germany – 1984–95	By sector	Sector	Negative
Skuterud (2007)	Canada – 1997–00	44 to 40	Sector/Region	Null
Raposo and van Ours (2010)	Portugal – 1996	44 to 40	Sector x Region	Positive
Chemin and Wasmer (2009)	France – 1998	39 to 35	Region	Null

Note: *This does not imply, by definition, that the total effect on employment is negative, as it does not take into account potential changes in hiring. ** Varejao (2005) finds a zero effect on employment when he defines the treatment firm and the control firm in a binary manner for the period 1996-1999, he estimates a negative coefficient when he includes treatment as a continuous variable. He estimates a negative coefficient when he includes treatment as a continuous variable. *** Kawaguchi et al (2017) find no significant effect on hours overall: for a subsample of firms with a significant effect on hours, they find a negative but insignificant effect on new hires.

Source: Batut, C, A Garnero, et A Tondini (2022), “The employment effects of working time reductions: Sector-level evidence from European reforms”, Industrial Relations: A Journal of Economy and Society 00: 1–16.



What is the impact on productivity?

No studies on the impact of a national reduction in normal working hours on productivity (per worker and/or per hour).

Instead, studies have examined the link between working time in general (including part-time work) and productivity:

- At *country level*: positive (Reif et al., 2021), negative (Li, 2022), U-curve (Bick et al., 2018, 2022), circular (Cette et al., 2024)
- At *industry level*: diminishing returns to hours (e.g. Leslie and Wise, 1980; Tatom, 1980; DeBeaumont and Singell, 1999; Shepard and Clifton, 2000).
- At *company level*: output is roughly proportional to the number of hours worked (Crépon et al, 2004; Schank, 2005; Kramarz et al, 2008; Gianella and Lagarde, 2011).
 - Other studies on the effects of part-time work find threshold effects (Künn-Nelen et al., 2013; Garnero et al., 2014).
- At *individual level*: diminishing returns for paramedical staff (Brachet et al., 2012), munitions workers (Pencavel, 2015) and call centre workers (Collewet and Sauermann, 2017).



Some lessons from working time reforms in Europe

Five national reforms (PRT, ITA, FRA, BEL, SVN) that took place between 1995 and 2007 exploiting initial differences across sectors in the share of workers exposed to the reforms:

Figure 1: Impact on the % of workers working more than the new hour threshold

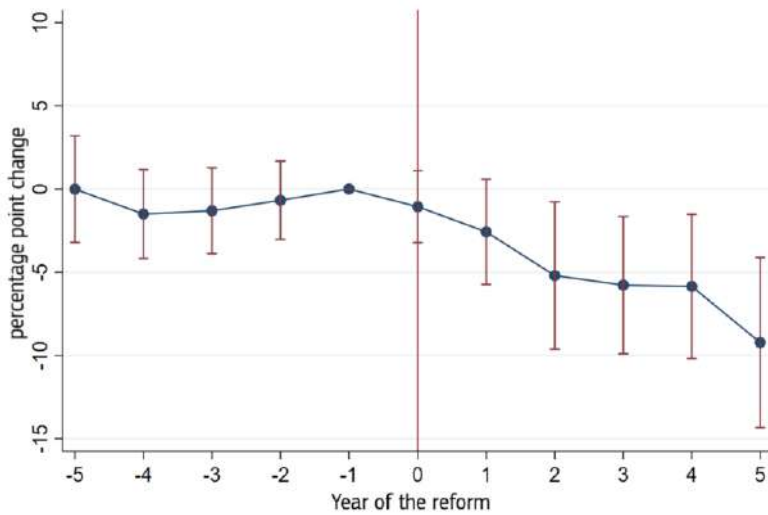


Figure 2: Impact on employment

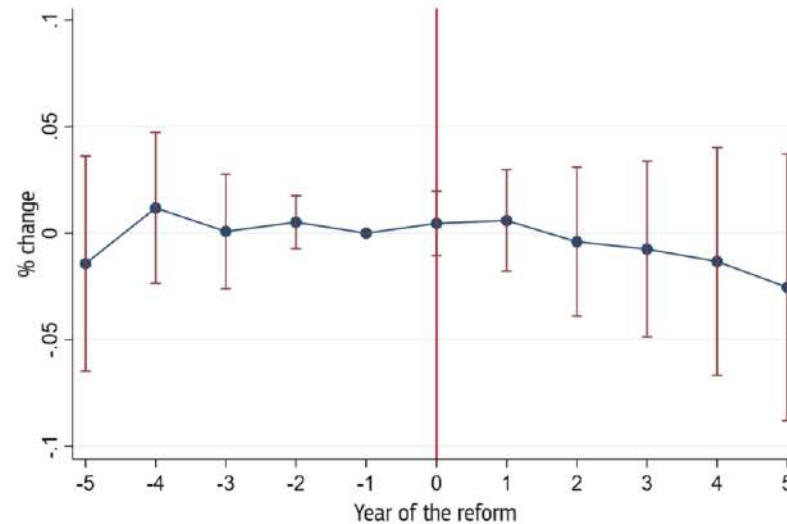
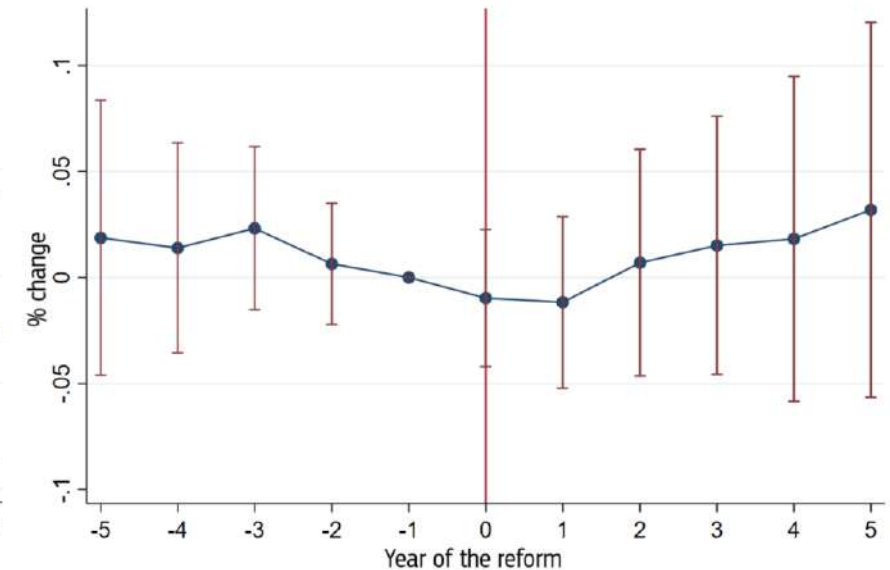


Figure 3: Impact on hourly labour productivity



Source: Batut, C, A Garnero, et A Tondini (2022), "The employment effects of working time reductions: Sector-level evidence from European reforms", *Industrial Relations: A Journal of Economy and Society* 00: 1–16.

On average, the number of hours worked in more affected sectors fell, hourly wages rose (not shown), while employment did not increase. The effect on value added per hour worked appears to be positive but non-significant.



What is the impact on well-being?

A number of studies have examined the link between shorter working hours and well-being:

Study	Country/Year	Reform	Impact on well-being
Rudolf (2014)	Korea – 1998/08	44 to 40	Women: increase in satisfaction with working time (SWT) but no impact on job satisfaction (JS) and satisfaction with life (LF). Men: increase in SWT but no impact on JS and LF
Hamermesh et al. (2017)	Japan – 1988/97 Korea – 1998/08	48 to 40 44 to 40	Women: increase in LF Men: no impact on LF Women: no impact on LF Men: increase in LF
Lepinteur (2019)	Portugal – 1996 France – 1998	44 to 40 39 to 35	Increase in JS and satisfaction with leisure activities in both countries

Empirical studies indicate a strong correlation between working long hours and **poor health outcomes** (especially when workers have little control over their time use) - OECD (2022).



What could be the impact of a 4-day work week?

- Difficult to draw on the reforms of the 1990s which reduced weekly and daily working hours without changing working days.
- More and more ‘**experiments**’ in several countries, but usually on a voluntary basis (with selection effects that make interpretation difficult).
- **Different models** (hence, likely, different outcomes):
 - *‘Standard’ 4-day week*: 4 days, same hours/day, same weekly/monthly pay \equiv reduction in working time.
 - *Compressed week*: same weekly hours but compressed over 4 days with same pay.
 - *Hybrid model*: 4 days with increased hours/days but also a reduction in weekly hours.

But also :

- Reduction in working hours/days with a consequent reduction in pay: \equiv *part-time*.
- Reduction in working hours/days accompanied by a public incentive to maintain the same wages without burdening companies: \equiv *short-time work*.

THANK YOU!

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