

Employment Protection and Firm-provided Training in Dual Labour Markets

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Motivation

- Acemoglu and Pischke (1999) emphasised that **non-competitive labour markets** and firing restrictions (as EPL) generate rents that are an increasing function of worker training: **stricter EPL might therefore foster incentives for firms to increase training.**
- However, in **(dual) labour markets** with different degree of EPL for permanent and temporary workers, there is an incentive for firms to **substitute temporary for permanent** workers by using a sequence of temporary contracts (Cahuc et al, 2016).
- Literature shows that **workers in temporary contracts enjoy less training.**

Institutional Context

- Before the **Fornero Reform**, employees in firms with more than **15 employees** had the right, in the case of a **dismissal declared unfair** by a court of law, to ask for **reinstatement** (and receive all foregone wages plus health and social security contributions) or receive a monetary compensation.
- In firms below the threshold, it was (and still is) **up to the employer** to decide whether to reinstate the worker (without paying foregone wages) or pay a smaller monetary compensation.
- The Fornero Reform (**July 2012**) limited the possibility for workers of firms with more than 15 employees to opt between reinstatement and a monetary compensation to a set of well-defined cases (e.g. discriminatory firing) and reduced the amount of the monetary compensation and eased the uncertainty surrounding the duration and costs of litigation.

Identification

- We **identify** the effect of EPL on firm training by comparing the change in the number of trained workers **below** the threshold (i.e. firms in the range 5-15 employees in our baseline specification) **pre and post** the FR to the change in training in firms just **above** the threshold (i.e. firms in the 16-25 range).
- The parametric implementation:

$$y_{it} = \alpha_0 + \alpha_1 post_t + \alpha_2 above_{it} + \alpha_3 above_{it} \times post_t + \alpha_4 f(E_{it} - 15) + \alpha_5 f(E_{it} - 15) \times above_{it} + \beta' X_{it} + \epsilon_{it}, \quad (1)$$

- A1. We need the continuity assumption in the forcing variable in RDDs.
- A2. The effect of the confounding policies in the case of no treatment is constant over time. This allows us to interpret α_3 as the local treatment effect of relaxing EPL on *firms subjected to the confounding policies*.
- A3. The effect of EPL at the threshold cannot depend on the confounding policies. With the three As, α_3 measures the causal effect of relaxing EPL in a neighborhood of the cut-off.
- Other institutions changing exactly at the 15-employee cut-off: namely the '**Cassa Integrazione Guadagni**' (workers' redundancy scheme) and the right to constitute **work councils** within a firm, which both may impact on training provision.
- Pooling the two cross sections requires the assumption that the **population of treated and untreated firms does not change as a result of the reform**, e.g. firms in 2015 above the threshold should be representative of firms above the threshold in 2010 (like a DID with pooled cross sections).

Data

- Data from a **survey conducted by INAPP** (formerly ISFOL), the National Institute for the Evaluation of Public Policies, namely ISFOL-RIL survey;
- We focus on the **number of workers who received some training** for the years **2010 and 2015**, about 24,000 and 30,000 firms, respectively.

Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
post	1.084*** (0.137)	-2.416*** (0.611)	1.291*** (0.303)	-3.287*** (1.107)	1.084*** (0.137)	-2.611*** (0.642)	1.084*** (0.137)	-2.635*** (0.690)
above	-0.407 (0.382)	-0.487 (0.382)	-0.501 (0.575)	-0.718 (0.556)	-0.848** (0.358)	-0.857** (0.349)	-1.966*** (0.412)	-1.925*** (0.394)
post×above	1.722*** (0.422)	1.544*** (0.402)	1.946*** (0.594)	1.642*** (0.535)	2.049*** (0.383)	1.887*** (0.368)	3.075*** (0.532)	2.857*** (0.495)
Bandwidth	(6-25)	(6-25)	(11-20)	(11-20)	(6-30)	(6-30)	(6-50)	(6-50)
Polynomial	Linear	Linear	Linear	Linear	Linear	Linear	Linear	Linear
Pol. inter.	above	above	above	above	above	above	above	above
Sec.×year f.e.	No	Yes	No	Yes	No	Yes	No	Yes
Reg.×year f.e.	No	Yes	No	Yes	No	Yes	No	Yes
Observations	16,486	16,462	7,851	7,836	17,826	17,797	21,266	21,229
R-squared	0.110	0.154	0.058	0.119	0.132	0.171	0.235	0.265

Sample of firms with **more than 5 and less than 26 employees**; we **trim** the data by dropping from the analysis those firms that experienced an year-on-year **growth rate of employees** larger (smaller) than the 95 (5) percentile; we restrict the sample to active firms.

Threats and Robustness

- We test of our main identification assumptions.
- Use the panel component of the dataset, about 5,700 obs;
- Quadratic polynomial in employment;
- Heaping: excludes multiple of 5s (of firm size);
- Donut: excludes 14, 15, 16;
- Fake cut-off set at firm size equal to 10 and 20;
- Include the *polynomial * post* interactions.

Mechanisms

	Dependent variable			
	(1) excess worker turnover	(2)	(3) number of permanent workers	(4)
post	0.391*** (0.092)	0.486*** (0.092)	-3.013*** (0.629)	-3.557*** (0.725)
above	0.098*** (0.032)	0.025 (0.051)	-0.656** (0.265)	-0.484 (0.433)
post×above	-0.104** (0.049)	-0.135* (0.075)	0.504 (0.612)	1.735** (0.738)
Bandwidth	(6-25)	(6-25)	(6-25)	(6-25)
Polynomial	Linear	Quadratic	Linear	Quadratic
Pol. inter.	all	all	all	all
Sec.×year f.e.	Yes	Yes	Yes	Yes
Reg.×year f.e.	Yes	Yes	Yes	Yes
Observations	10,724	10,724	16,508	16,508
R-squared	0.197	0.205	0.737	0.738

Conclusions

- Using a DRDD that exploits the Fornero reform of EPL, we find evidence that the **number of trained workers increased** for firms just above the threshold: about 1.5 additional workers (i.e. an about 50% increase in the number of trained workers at the cut-off);
- We have some evidence that a possible mechanism is that the **number of permanent workers (excess worker turnover) has increased (diminished)** following the reform (using the same identification approach).
- This seems entirely driven by a **substitution effect**: the number of permanent increases by the same amount at the cutoff after the reform.