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What kind of training works for the unemployed and first-time job seekers? Differential effects of a regional program

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Active labour market policies

The reasons why *ALMP* are put in place include (Calmfors, 1994):

✓ to reduce mismatch between different sub-markets for labour, to the extent that the qualifications of job searchers can be better adapted to the structure of L demand

✓ to promote more active search behaviour on the part of job seekers

✓ in some cases programs can substitute for regular work experience in reducing employer uncertainty about the employability of job applicants (screening function)

✓ to encourage or maintain participation in the labour force, …

Training programs tackle many of these goals, but one of their possible pitfalls is that participants might be locked into programs whose eventual effects are highly uncertain

The effects of traning for job seekers in the empirical literature

As for training programs, empirical literature has found mixed results with respect to job seekers

✓ they are less effective than other policies, such as subsidised private sector employment or job search assistance + sanctions (Kluve, 2010; Sianesi, 2008)

✓ it may occur that training has negative effects (Friedlander et al, 1997; Lechner et al, 2005)

✓ they are likely to bring positive effects, if any, in the medium-long run (Lalive et al, 2008; Card et al, 2010)

Very little Italian evidence on training programs for job seekers, limited use of counterfactual approaches, e.g.

positive effects (Bellio e Gori, 2003; Berliri et al, 2002)

no effects (Battistin e Rettore, 2002) → RDD

What kind of effects? For whom? What kind of training?

We try to add to the scanty Italian evidence on the effects of training programs for the unemployed and first-time job seekers (FTJS), drawing our data from a regional (Tuscany) ESF-funded program

We try to respond to the following set of questions

- ✓ Has training promoted the (re-)employment of the unemployed and FTJS? And, if yes, has it increased the probability to find a permanent job or instead only a temporary one?
- ✓ Has the program been equally effective across all types of beneficiaries, or instead only for some of them?
- ✓ Have participants been locked-in in the training activity, thus delaying their active search for a job?; and also
- ✓ Which types of training work best, and which ones do not work at all?

The creation of a suitable dataset

Under treatment: 758 observations, unemployed (485) and FTJS (273) that have participated in ESF-funded training from Jun 2007 to Jul 2008 and have completed it [source: administrative data]

Controls: 1558 observations, unemloyed (914) and FTJS (644). It is a stratified sample drawn from Job Centre data (end of 2007), that enables us to find a set of controls that is similar to those under treatment in terms of gender, educational level and citizenship

In Italy we may hardly rely on longitudinal labour-history datasets (e.g. Switzerland, Germany), so we get additional information

1) interviews to treated and controls, so as to obtain a wide array of information on pre-2007 individual characteristics and histories, as well as on current employment status (Spring 2011) and its quality. We combine interviews with

2) Job-centre data, related to the first employment spell experienced after the start of training (late 2007 for controls), so as to reconstruct job-search duration. Note that this first spell may have little to do with current status

Selected differences between treated and non-treated individuals

Notwithstanding initial sampling, some differences persist with respect to pre-training characterstics (pre 2008 for controls)

	TREATED		NON TREATED		treated obs. are/have…
	Unempl	FTJS	Unempl	FTJS	
n. of observations	485	273	914	644	
women %	68.6	66.7	64.1	66.8	
age	35.7	29.4	38.3	36.0	younger
no children %	64.7	80.6	47.1	50.1	less dependents
actively searched for a job %	98.6	74.4	93.5	55.7	more active
compulsory education %	24.9	26.7	32.8	23.5	
high-school diploma %	60.0	59.0	48.4	51.5	more educated
needed part-time job %	28.7	30.8	33.8	49.7	more willing for full-time, less ready to accept any job
needed ANY job %	32.2	35.9	61.3	67.5	
needed a job within a 30mins drive from home %	38.1	44.7	52.2	53.7	more ready to commute
believed that training is useless %	3.7	2.9	10.9	12.6	more positive approach and expectations

An identification strategy based on unconfoundedness (1)

☺ Thanks to the vast array of data on individual characteristics and histories in our dataset we believe that an identification strategy based on unconfoundedness (Rosenbaum and Rubin 1983) is credible enough

☹ We have no credible instruments or explicit thresholds in order to implement an IVs or a RDD strategy

☺ Recent contributions have generalized unconfoundedness and relative methods to the case of multiple treatments (Lechner 2001 for theory and a handful of subsequent applications), which offer the opportunity to compare the effectiveness of different types of training

An identification strategy based on unconfoundedness (2)

It is known that mathing reduce bias due to observed covariates (Imbens and Wooldridge, 2010). Let us focus on the following issues highlighted (or not) by the literature

Issues raised by the literature	*Our response*
to make unconfoundedness more credible, use a large number of covariates	We carefully work on the estimated propensity score and its specification, with a very large number of covariates, checking for balancing and common support
choices to be made when dealing with small samples, for which literature does not provide univocal guidance: metrics, number of matches (bias/precision trade-off)	We use the difference in means and variances after matching to guide the choice of the number of matches (result: 1 match)
combining matching and regression adjustment techniques reduces bias and leads to more robust inferences (doubly-robust procedures)	Bias-adjusted matching estimator of Abadie and Imbens (2011), with the propensity score as a distance metrics and regression adjustment for the covariates that do not pass the balancing check We force exact matching by gender, educational level and age class

Matching covariates

General characteristics: gender, age, citizenship

Household characteristics and position within the household: n. of members, n. of income recipients, n. and age of children, highest educational level attained by both parents, own a house/rent/social housing; the interviewee is: breadwinner, child/spouse of breadwinner

Educational and training history: level and type of education attained (e.g. compulsory, lyceum, degree in engineering), n. of years before dropout, years past after completing education, has already participated in training

Expecations and motivational proxies: was looking for any/specific job, full/part time job, was ready to commute/relocate, believed that training is useless/useful to increase general skills or self-esteem/useful to find a job

Labour history: n. of jobs, n. of months worked, characteristics of the last job (type of contract, position, sector of activity, wage), reasons for leaving the last job, length of last unemployment spell, was a subsidy recipient, has declined job offers, has actively searched for a job

Local labour market: geographical dummies

The effects of training on current status by target group

		all possible controls	matched controls only	under training	ATT	P-value
Unempl	empl. rate / any job	38.6%	41.9%	52.2%	10.3%	0.038
	empl. rate / permanent job	17.5%	21.6%	20.4%	-1.2%	0.776
FTJS	empl. rate / any job	20.0%	27.0%	46.5%	19.6%	0.002
	empl. rate / permanent job	7.6%	9.6%	21.2%	11.7%	0.023

Significance levels 1% 5% 10%

The UNEMPLOYED under training see their probability of being employed in early 2011 increase by 10%. No effect in terms of probability of being permanently employed

FTJS under training see their probability of being employed in early 2011 increase: by 20% with respect to “any job” and by 12% with respect to a permanent job

Training seems to work better for FTJS than for the unemployed, whatever the outcome variable

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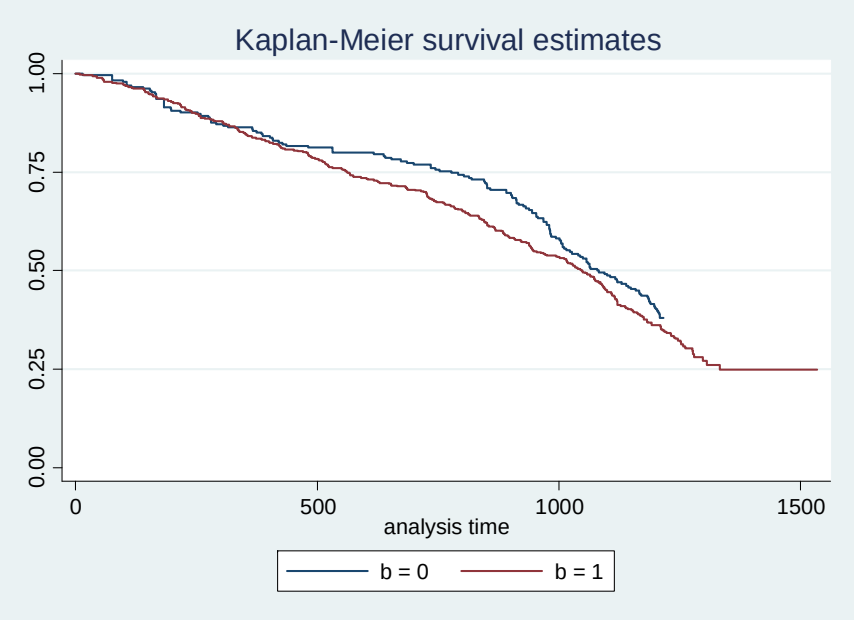
The effects of training are heterogeneous

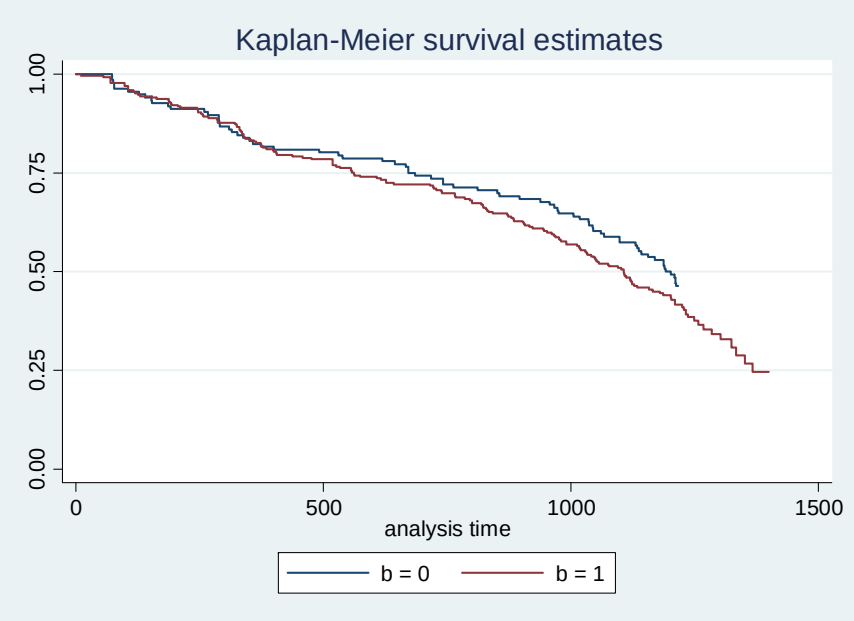
	Any job (ATT)		**Permanent job** (ATT)	
	Unempl	FTJS	Unempl	FTJS
Males	13.3%	28.4%	-2.4%	-0.7%
Females	9.1%	15.9%	11.1%	12.4%
Compulsory edu	20.5%	30.6%	3.1%	8.4%
High school edu	5.4%	14.4%	-2.4%	12.8%
University edu	9.4%	21.4%	-6.4%	16.3%
up to 30 y.o.	1.7%	-----	-12.0%	-----
31-45 y.o.	13.0%	-----	6.9%	-----
> 45 y.o.	23.7%	-----	1.0%	-----
up to 19 y.o.	-----	25.8%	-----	18.1%
20-30 y.o.	-----	14.1%	-----	6.7%
> 30 y.o.	-----	18.7%	-----	13.6%
short-term unempl	10.9%	-----	-7.5%	-----
long-term unempl	21.3%	-----	12.5%	-----

Is there any lock-in effect?

for the unemployed…



for FTJS



These non-parametric survival functions represent the share of those who are still searching for a first job, as days go by

Let us focus on the left part of the functions, where training is taking place…
They are approximately the same for the treated (red) and matched controls (blue)!
If there was lock-in, the red function had do be clearly above the blue one

There is no evidence of a lock-in effect

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Which types of training work? Treated vs controls

		UNEMPLOYED (ATT)		FTJS (ATT)	
		any job	permanent	any job	permanent
duration of training	long	7,40%	-7,46%	27,23%	24,17%
	short	11,31%	1,07%	13,78%	5,78%
avg daily hours	intensive	10,39%	-3,56%	25,34%	21,78%
	non-intensive	9,65%	-2,38%	10,31%	2,25%
type of competencies	blue collars, sales, tourism	14,94%	-2,02%	17,12%	11,35%
	personal care and services	24,67%	8,67%	30,95%	23,81%
	general	9,38%	3,52%	1,96%	5,88%
	office and office autom	12,77%	2,00%	16,67%	26,32%

Short & specific training works for the unemployed

Long & specific training works for FTJS

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Which types of training work? Treated vs treated (1)

FTJS: what happens if we move one from long (col) to short (row)?

		ANY JOB (ATT)		PERMANENT JOB (ATT)	
		duration of training		duration of training	
		to long	to short	to long	to short
duration of training	from long	-----	-12,90%	-----	-13,98%
	from short	13,25%	-----	16,87%	-----
		avg daily hours		avg daily hours	
		intensive	non-intensive	intensive	non-intensive
avg daily hours	intensive	-----	-18,80%	-----	-16,91%
	non-intensive	6,60%	-----	1,17%	-----

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Which types of training work? Treated vs treated (2)

FTJS: what happens if we move one from blue collar (row) to personal care (col) training?

ANY JOB (ATT)

	blue collars	p. care	general	office
blue collars, sales, tourism	-----	36,37%	-15,69%	5,26%
personal care and services	-32,12%	-----	-36,17%	no c.s.
general	5,62%	35,71%	-----	no c.s.
office and office automation	5,17%	no c.s.	no c.s.	-----

PERMANENT JOB (ATT)

	blue collars	p. care	general	office
blue collars, sales, tourism	-----	23,75%	-13,73%	5,26%
personal care and services	-21,73%	-----	-17,02%	no c.s.
general	5,62%	21,43%	-----	no c.s.
office and office automation	5,17%	no c.s.	no c.s.	-----

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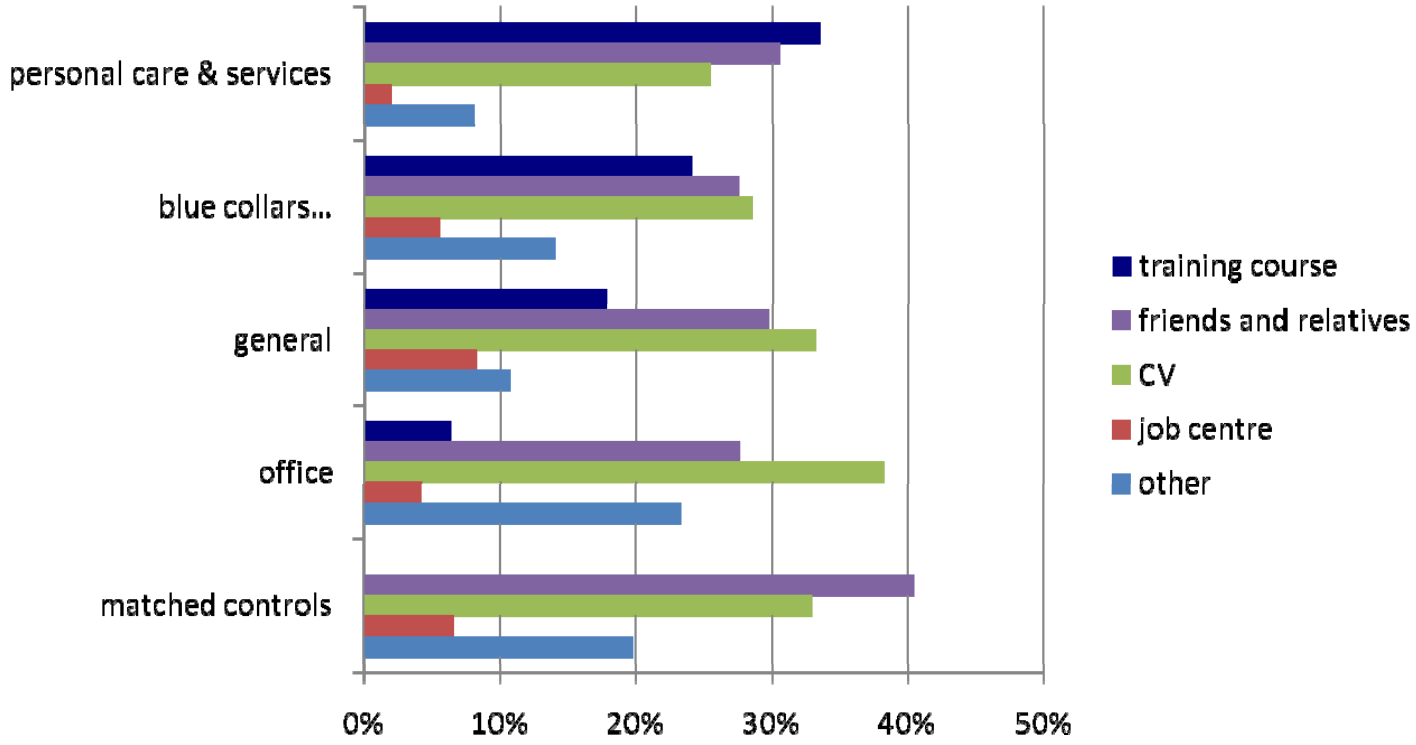
How did they get a job offer?



Training courses offer some “real” opportunities for the matching of labour supply and demand

Concluding remarks

Training works better for FTJS than for the unemployed.
It increases the probability of being permanently employed for the former

Specific training works better, but the unemployed should be encouraged towards short-term training, FTJS towards long-term (and intensive?) training

In addition to improvements in policy-targeting, more effort should be put forth in order to complement training with more effective job-search assistance

Current developments of this work

assess whether results are robust to failures of the unconfoundedness assumption by formal sensitivity analysis (Ichino, Mealli and Nannicini 2004)


The End