



IRPET Istituto Regionale
Programmazione
Economica
della Toscana



UNIVERSITÀ
DEGLI STUDI
FIRENZE

AISRE 2016 -Ancona

Evaluation of training providers for a new governance of the training system

E. Cappellini*, S. Duranti*, V. Patacchini*, C. Rampichini, N. Sciclone***

****Irpel **University of Florence***

Outlook

Objective: to provide the policy maker with a tool to reallocate financial resources according to agencies' employment performance

Data sources: administrative data on FSE funded training activities merged with Compulsory Communications System of labour market flows

Basic outputs: ranking of training agencies and consequent new resources reallocation

Current model

Accreditation:

- formal criteria not concerning employment performance
- penalties in case of formal errors and administrative deficiencies

Call for projects

Projects proposals from training agencies

Projects evaluation, selection and financing by the Regional administration

Proposed model

Formal accreditation

Employment performance evaluation:
allocation of agencies into 3 segments
(best, medium and worst performers)

Calls for projects by segment:

- 40% contestable by all agencies
- 40% contestable by not worst agencies
- 20% contestable by best performing agencies

Projects proposals from training agencies

Projects evaluation, selection and financing by the Regional administration

The proposed model: 3 steps procedure

Profiling of the users: summarize in a single score the relative distance of each unemployed from the labour market for administrative use

Estimation of a multilevel model: ranking agencies according to their net performance

Simulation of the new model on the allocation of resources: winners and losers

The profiling system

Classe di età	Genere	Studio	In cerca di prima occupazione	Disoccupato meno di 12 mesi	Disoccupato oltre 12 mesi
Under 29	M	obbligo	1.7	1.5	1.8
		diploma o laurea	1.7	1.0	1.6
	F	obbligo	1.8	1.7	1.8
		diploma o laurea	1.7	1.0	1.6
30-49	M	obbligo	1.9	1.6	1.8
		diploma o laurea	1.9	1.3	1.7
	F	obbligo	1.9	1.6	1.8
		diploma o laurea	1.9	1.3	1.8
50+	M	obbligo	2.0	1.8	1.9
		diploma o laurea	2.0	1.7	1.8
	F	obbligo	2.0	1.8	1.9
		diploma o laurea	2.0	1.6	1.9

The profiling system

Classe di età	Genere	Studio	In cerca di prima occupazione	Disoccupato meno di 12 mesi	Disoccupato oltre 12 mesi
Under 29	M	obbligo	0.46	0.59	0.44
		diploma o laurea	0.46	0.75	0.55
	F	obbligo	0.39	0.52	0.37
		diploma o laurea	0.46	0.74	0.52
30-49	M	obbligo	0.29	0.56	0.43
		diploma o laurea	0.26	0.69	0.49
	F	obbligo	0.24	0.54	0.41
		diploma o laurea	0.21	0.68	0.42
50+	M	obbligo	0.16	0.38	0.26
		diploma o laurea	0.13	0.51	0.37
	F	obbligo	0.18	0.44	0.33
		diploma o laurea	0.07	0.54	0.23

Estimation of agencies's net performance

Multilevel logit model to take into account the hierarchical structure of data → no independence of observations

- $Y_{i,j} = \alpha_j + \beta_{i,j} X_{i,j} + \varepsilon_{i,j}$
 - $\alpha_j = \alpha + \nu_{0,j}$
 - $\text{Var}(\varepsilon_{i,j}) = \sigma^2$ $\text{Var}(\nu_{0,j}) = \tau^2$
- $i=1, \dots, n$ individui ; $j=1, \dots, k$ agenzie
 $\nu_{0,j}$ errore di secondo livello
Variabili casuali con media nulla e varianza σ^2 e τ^2

• Use of multilevel logit model's results: ranking of agencies according to second level residuals

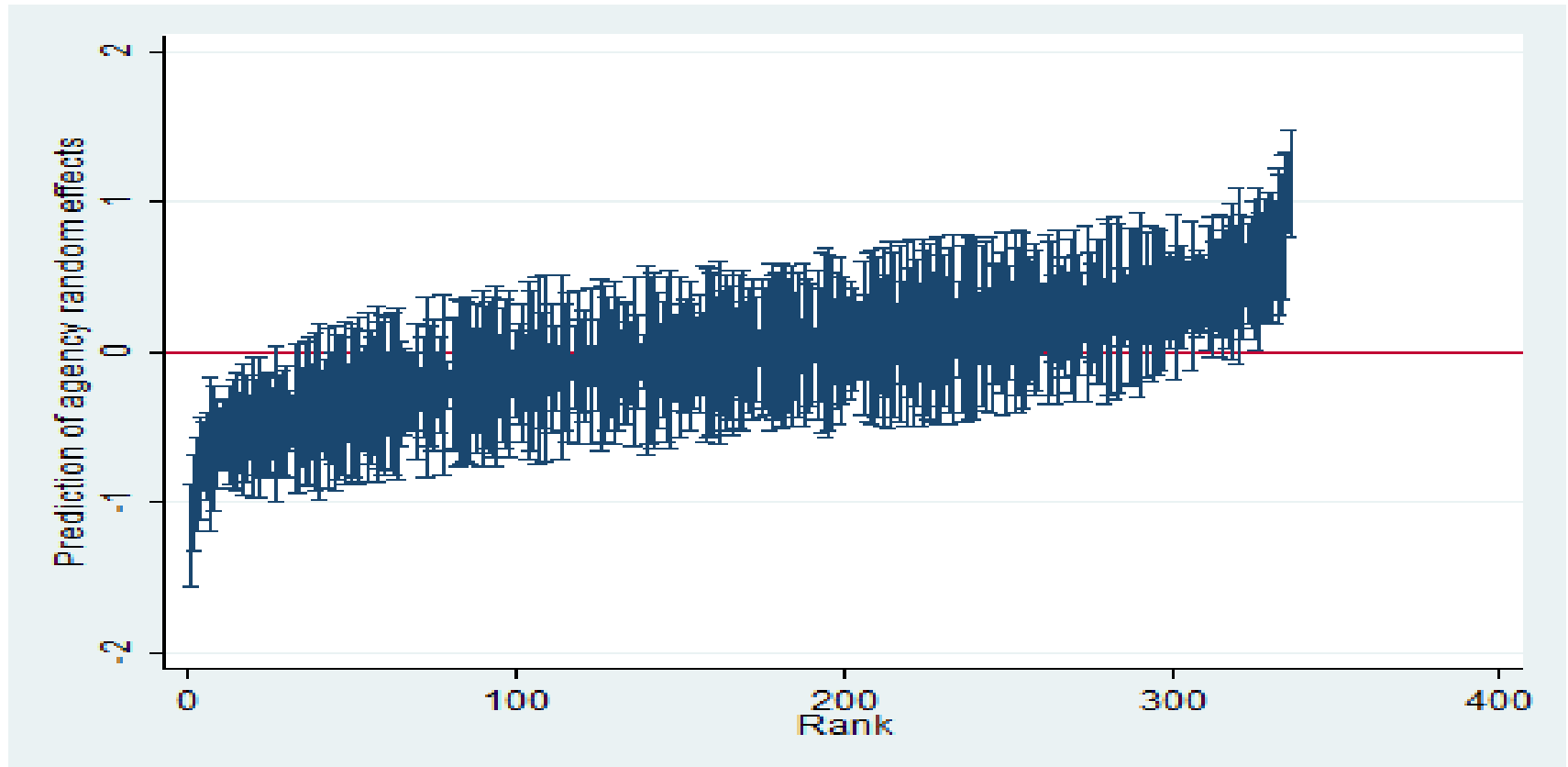
Covariates

Individual characteristics	Course	Labour market context	Agency
Sex	Content (vocational/non vocational)	Employment rate in the Local Labour System	Average profiling score
Age	Duration and organization (diluted, structured, light, intensive)	Year of course end	% disabled
Nationality			% trainees with no work experience
Education			% of Italians
Work experience			% of over50
Duration of unemployment			% of long-term unemployed
Disability			

Expected probability for different profiles of trainee and training providers

	<i>Average agency (sd=0)</i>	Low performing agency ($u=-2*sd$)	High performing agency ($u=-2*sd$)
Well equipped young	67%	45%	83%
Woman re-entering the labour market after maternity	64%	42%	82%
Disadvantaged young	60%	37%	79%
Aged man loosing lifetime job	47%	26%	69%
Baseline subject	75%	55%	88%

Expected probability for different profiles of trainee and training providers



Selection of three segments of agencies:

- the best performers (42)
- the medium-performers (249)
- the worst performers (46)

Conclusions

A governance structure based on evaluation of training providers in order to improve the overall effectiveness of the system

The proposed methodology, although based on clear and transparent criteria, leaves room for political choices in more than one aspect.

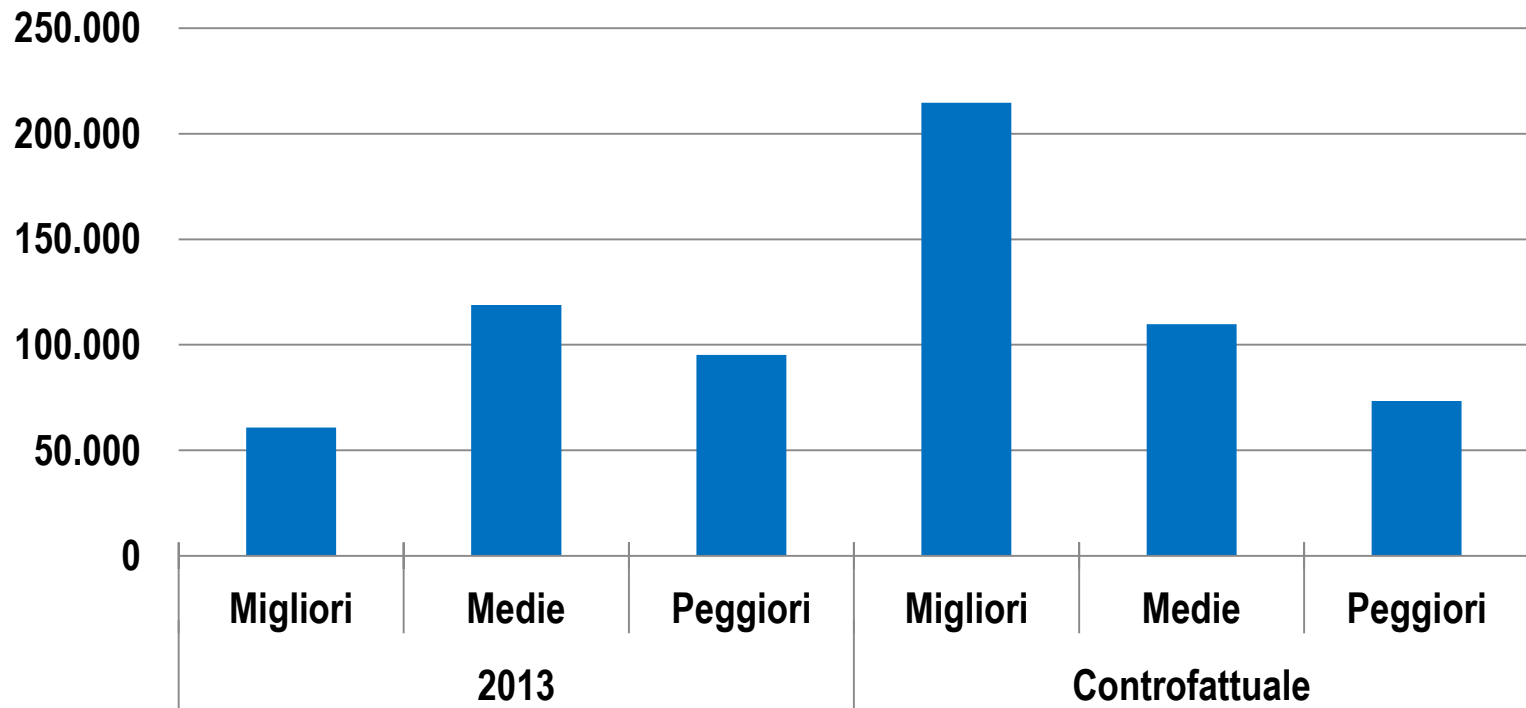
- Methodology for the estimation the profiling score**
- Choice of the outcome variable**
- Choice of covariates included in the multilevel model**
- Choice of the thresholds for the identification of best and worst performers and the creation of the segments of agencies (different models for the classification of u)**
- Definition of quotas reserved to each segment**

The distribution of resources among agencies

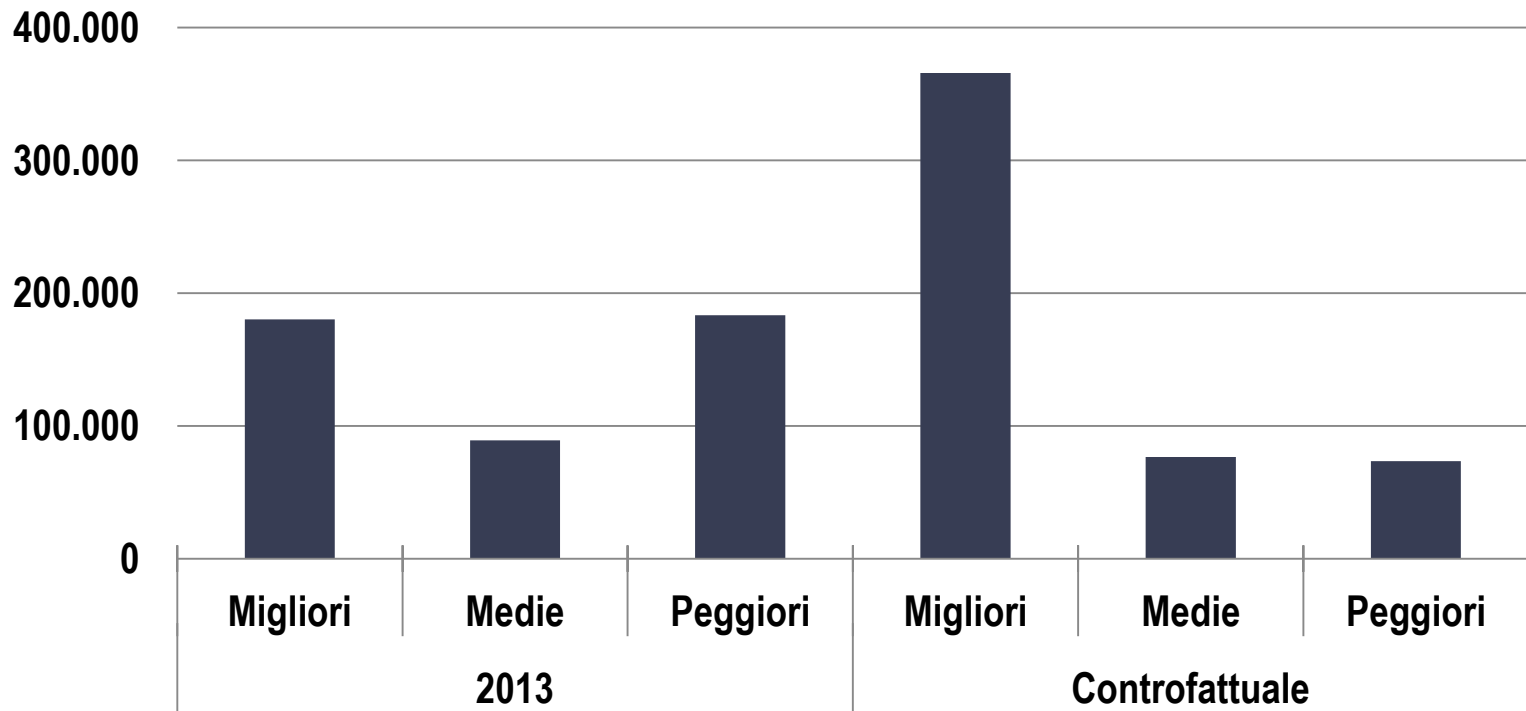
Quinti di agenzie	Situazione vigente (2013)	Modello 3
1° Quinto	3%	3%
2° Quinto	9%	7%
3° Quinto	15%	12%
4° Quinto	23%	19%
5° Quinto	50%	59%
Indice di GINI	0.46	0.54

The distribution of resources among agencies (average value per agency)

Modello di rating 1



The distribution of resources among agencies (average value per agency)





IRPET Istituto Regionale
Programmazione
Economica
della Toscana



UNIVERSITÀ
DEGLI STUDI
FIRENZE

AISRE 2016 - Ancona

Evaluation of training providers for a new governance of the training system

E. Cappellini*, S. Duranti*, V. Patacchini*, C. Rampichini, N. Sciclone***

****Irpel **University of Florence***