MAILING-list

Methods, Advancements & Interchange open-Line of the Impact evaluation Network Group

# Bibliographical newsletter

14/12/2016 Year 2, Number 2

In the following pages you'll find bibliographical news on recently published papers and on open source works in the field of policy evaluation.

Information has been organized by Author, following a first-in, first-served criterion. Nevertheless, here are some previews of the methods applied in the research works presented:

- Difference in Differences
- Evaluation based on big data
- Non-parametric regression discontinuity design
- Fuzzy regression discontinuity design
- Time-varying treatment effects model,
- Biographical method,
- Zero Inated Negative Binomial model
- Cluster-randomized experiment; Randomization inference
- Binomial regression models
- Composite indicators, structural equation model
- Synthetic control approach

In this number you'll find works analysing:

- User profiling in social policies
- Labour market indicators from big data
- Second chance education
- Individual disadvantage in training policies
- Incentives to enhance young people cultural consumption
- Effectiveness of the fight against tax evasion
- Effectiveness of structural funds across regions and in periods of regression
- Sustainability of the effects of development policies
- Technological districts
- Intellectual property rights
- Entrepreneurial policies

…and much more

*By Elena Ragazzi and Lisa Sella*

Consiglio Nazionale delle Ricerche

IRCrES

ISTITUTO di RICERCA sulla CRESCITA ECONOMICA SOSTENIBILE
INSTITUTE of RESEARCH on ECONOMIC SUSTAINABLE GROWTH

**This newsletter circulates bibliographical information about recently issued research work concerning impact evaluation. It is fed by the contribution of the authors, who remain responsible for the correctness and completeness of information and for the quality of the work. The newsletter is managed on a volunteering basis by the editors. We hope that it will foster a reflection on the evaluation experiences so as to improve methodological tools and to ease their correct application, and that it will encourage a discussion on the latest advancements, by easing their diffusion.**

The next bibliographical newsletter will occur in SPRING.

Please send to mlist@ircres.cnr.it

- new open source works (reports, working papers, papers and presentations discussed at conferences). In this case send
    - the full bibliographical reference
    - the link to download it,
    - a short abstract (no more than 250 words)
- bibliographical references of published works (articles or books). In this case send
    - the full bibliographical reference
    - a short abstract (no more than 250 words)

**WITHIN MARCH 31ST**

Please follow the format of the following pages, that can be download **here**

| |
|---|
| **Full bibliographical reference**: <br> Ferrara A.R., McCann P., Pellegrini G., Stelder D. and Terribile F. (2016) "Assessing the impacts of Cohesion Policy on EU regions: a non-parametric analysis on interventions promoting research and innovation and transport accessibility", *Papers in Regional Science*, doi:10.1111/pirs.12234. |
| **Abstract**: Traditionally, the effectiveness of European Cohesion Policy has been evaluated in terms of GDP growth rate. In this paper, we consider the effect of the regional policy in terms of its impacts on two specific fields of intervention, namely 'research, technological development and innovation', and 'transport infrastructure'. Our econometric approach involves the use of a *non-parametric regression discontinuity design* technique to a uniquely-disaggregated Cohesion Policy dataset broken down according to the specific objectives of each stream of funding. The analysis considers different time intervals and sub-samples. Our results demonstrate a positive impact of Cohesion Policy interventions in these two specific fields of intervention. |
| **Link**: http://onlinelibrary.wiley.com/doi/10.1111/pirs.12234/epdf |

| | |
|---|---|
| **Type**: Article | **Contact**: antonellarita.ferrara@unical.it |
| **Language**: English | **Open source**: NO |

| |
|---|
| **Keywords**: EU Cohesion Policy, regression discontinuity design, research and innovation, transport infrastructure |
| **Notes**: |

| |
|---|
| **Full bibliographical reference**: Bachtrögler, Julia (2016): On the effectiveness of EU structural funds during the Great Recession: Estimates from a heterogeneous local average treatment effects framework. *Department of Economics Working Paper Series*, 230. WU Vienna University of Economics and Business, Vienna. |
| **Abstract**: This study investigates the heterogeneity of European NUTS-2 regions with regard to their ability to take advantage of European Union (EU) structural funds aimed at convergence. It considers a concept of absorptive capacity based on regional policy design, and additionally accounts for the programming period 2007-2013 in the empirical analysis. A *fuzzy regression discontinuity design* allowing for heterogeneous treatment effects is applied to evaluate convergence funds in 250 NUTS-2 regions from 2000 (and 1989) to 2013. The main results suggest a positive conditional impact of funds payments on regional GDP per capita growth. However, based on a *time-varying treatment effects model*, we are able to identify a deterioration in the effectiveness of convergence funds during the programming period 2007-2013. Furthermore, the analysis reveals an inverted U-shaped relationship between the share of committed funds paid out and GDP per capita growth. The latter finding indicates that the marginal benefits from EU convergence funds might be decreasing. |
| **Link**: http://epub.wu.ac.at/5157/ |

| | |
|---|---|
| **Type**: Working Paper | **Contact**: julia.bachtroegler@wu.ac.at |
| **Language**: English | **Open source**: Yes |

| |
|---|
| **Keywords**: Structural Funds / Heterogeneous Treatment Effects / Regional Heterogeneity / Absorptive Capacity / Cohesion / European Union |
| **Notes**: |

| | |
|---|---|
| **Full bibliographical reference**: Salva-Mut, F., Nadal-Cavaller, J. & Melià-Barceló, M. A. (2016). Itinerarios de éxito y rupturas en la educación de segunda oportunidad. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 14 (2), pp. 1405-1419. | |
| **Abstract**: The concept of second chance education (hereafter SCE) refers to the programs launched to combat the social exclusion of people (in particular young people) who have left school with a level of education below upper secondary. Training employment programs aimed at young people are the most widespread SCEs in Spain.<br>The results of an evaluative investigation of one of those programs, based on the *biographical method*, are shared in this article. A comprehensive educational approach that includes its individualization, training content and the learnings achieved, methodological strategies, emotional ties and the educational environment are identified as determinants of success. Moreover, there is a noticeable positive impact of the young people's participation on their personal lives and work opportunities. | |
| **Link**: [http://revistalatinoamericanaumanizales.cinde.org.co/wp-content/uploads/2016/08/35.-Itinerarios-de-%C3%A9xito-y-rupturas-en-la-educaci%C3%B3n.pdf](http://revistalatinoamericanaumanizales.cinde.org.co/wp-content/uploads/2016/08/35.-Itinerarios-de-%C3%A9xito-y-rupturas-en-la-educaci%C3%B3n.pdf) | |
| **Type**: journal article | **Contact**: f.salva@uib.es |
| **Language**: Spanish | **Open source**: yes |
| **Keywords**: Unqualified young people, transition from school to work (Thesaurus for Education Systems in Europe); vocational training, dropping out, success factors (Unesco-IBE Education Thesaurus-OIE). | |
| **Notes**: | |

| | |
|---|---|
| **Full bibliographical reference**: Battiston, P., Duncan, D., Gamba, S., Santoro, A., (2016) "The Italian Blitz: a natural experiment on audit publicity and tax compliance", FBK-IRVAPP Working Paper 2016-10 | |
| **Abstract**: Tax evasion is a major problem faced by governments across the world, and many strategies have been attempted to minimize its extent. One such strategy is the "fiscal blitz", consisting in clusters of unexpected tax verification activities targeting businesses. Blitzes have been widely implemented in Italy: the ones taking place in the last years shared many common features, but differed in the level of publicity they received on the media. We use confidential data on Value Added Tax payments at the sector level in two cities to estimate the effect of such publicity on tax compliance of local sellers. By employing a *Difference-in-Differences identification strategy*, we find that the publicity of the blitz has a positive effect on fiscal declarations made shortly after. The results suggest that increasing awareness on future audits via the media can be an important instrument in the hands of tax authorities. | |
| **Link**: https://irvapp.fbk.eu/publications/italian-blitz-natural-experiment-audit-publicity-and-tax-compliance | |
| **Type**: Working paper | **Contact**: gamba@irvapp.it |
| **Language**: English | **Open source**: yes |
| **Keywords**: Difference in difference, tax evasion | |
| **Notes**: | |

| |
|---|
| **Full bibliographical reference**: Gamba, S., (2016) "The Effect of Intellectual Property Rights on Domestic Innovation in the Pharmaceutical Sector", CESifo Working Paper No. 6004. |
| **Abstract**: This paper analyses the causal impact of Intellectual Property Rights (IPR) on pharmaceutical innovation in a panel of 74 countries. The identification strategy exploits the different timing across countries of two sets of IPR reforms. Domestic innovation is measured as citation-weighted domestic patents filed at the European Patent Office (EPO): to account for their distribution, count data models are used. A *Zero Inated Negative Binomial model* is adopted to consider the choice not to patent at the EPO. Results show that, in the short-run, IPR stimulate innovation. The effect for developing countries is roughly half of that for developed countries. |
| **Link**: https://www.cesifo-group.de/ifoHome/publications/working-papers/CESifoWP/CESifoWPdetails?wp_id=19236046 |

| | |
|---|---|
| **Type**: Working paper | **Contact**: gamba@irvapp.it |
| **Language**: English | **Open source**: yes |

| |
|---|
| **Keywords**: Intellectual property rights, pharmaceutical industry |
| **Notes**: |

| | |
|---|---|
| **Full bibliographical reference**: Lattarulo, P., Mariani, M. & Razzolini, L. (2016). "Nudging museums attendance: a field experiment with high school teens". Journal of Cultural Economics, doi: 10.1007/s10824-016-9285-6 | |
| **Abstract**: This paper reports results from a field experiment conducted to study the effect of incentives offered to high school teens to motivate them to visit art museums. A vast literature exists on the design of incentives to modify the behavior of firms and consumers, but not much is known about incentives offered to adolescents and young adults to affect their cultural consumption behavior. Students in the first treatment receive a flier with basic information and opening hours of a main museum in Florence, Italy—Palazzo Vecchio. Students in the second treatment receive the flier and a short presentation conducted by an art expert about the exhibit; students in the third treatment, in addition to the flier and the presentation, receive also a non-financial reward in the form of extra-credit points toward their school grade. The analysis yields two main findings. First, non-financial reward is more effective at inducing the students to undertake the encouraged visit than either the simple presentation or the basic information with the flier. Second, over a longer time horizon the non-financial reward does not induce a significant change in behavior with respect to the simple presentation. | |
| **Link**: http://link.springer.com/article/10.1007/s10824-016-9285-6 | |
| **Type**: Journal article | **Contact**: marco.mariani@irpet.it |
| **Language**: English | **Open source**: No, see below for a recent working-paper version |
| **Keywords**: Incentives; Non-monetary rewards; Cultural consumption; *Cluster-randomized experiment; Randomization inference* | |
| **Notes**: A recent version of this article is downloadable here http://www.people.vcu.edu/~lrazzolini/musei.pdf as a working paper | |

| | |
|---|---|
| **Full bibliographical reference**: Barone G., David F. and De Blasio G. (2016). Boulevard of broken dreams. The end of EU funding (1997: Abruzzi, Italy). Regional Science and Urban Economics; 60: 31-38. | |
| **Abstract**: EU regional policies aim to push regions into self-sustaining growth. Successful interventions would imply a higher growth rate, not only during the treatment (when the region benefits from the transfers), but also after the expiry of the program (when the financing terminates). We investigate to what extent this happened in the case of Italy's Abruzzi region, which entered into the Objective 1 (Convergence) program in 1989 and exited it in 1996 (without a transitional regime). More specifically we focus upon the post expiry period by implementing a *synthetic control approach*. Our results indicate that exiting the program had a negative effect on regional per-capita GDP growth. This result is a confirmation of the widespread evidence that during their implementation EU regional policies help boost the economic performance of the treated regions. However, additional evidence suggests that the permanent effect of the treatment is negligible: the policies fail to transfer the treated regions to a permanently higher GDP growth path. | |
| **Link**: http://www.sciencedirect.com/science/article/pii/S0166046216300357 | |
| **Type**: journal article | **Contact**: francesco.david@bancaditalia.it |
| **Language**: english | **Open source**: yes |
| **Keywords**: EU cohesion policy, Regional growth, Synthetic control method | |
| **Notes**: the article can be freely downloaded at https://www.bancaditalia.it/pubblicazioni/temi-discussione/2016/2016-1071/en_tema_1071.pdf | |

| | |
|---|---|
| **Full bibliographical reference**: Cutrini Eleonora, Pompili Marco, Ciffolilli Andrea, (2016), *Are European funds supporting new firms' formation well spent? New evidence on the role of public expenditure for entrepreneurship in Italy*, XXXVII Conferenza italiana di scienze regionali | |
| **Abstract**: This paper analyses the relation between the European expenditure for entrepreneurship in 2007-2013 and new firm formation in the Italian provinces (NUTS3 level). *Binomial regression models* are used to estimate the effects of public spending as well as of a set of control variables drawn from the literature on new firm formation. We find that EU spending has a positive and significant effect on new firm formation. We also find a clear evidence of positive effects of: human capital, demand growth (measured by the average annual growth rate of population) and density of economic activity (measured by the number of existing firms per thousand inhabitants). The role of other factors is less clear but, overall, the findings confirm that even in a time of recession, the resources used for entrepreneurship policy had the desired effect and more can be done in the future to extend their scope and coverage. | |
| **Link**: http://www.aisre.it/images/aisre/578d38ba4c67c1.26217127/Cutrini1.pdf | |
| **Type**: Working paper | **Contact**: eleonora.cutrini@unimc.it ; pompili@ismerieuropa.com |
| **Language**: English | **Open source**: Yes |
| **Keywords**: New firm formation, Cohesion policy expenditure, binomial regression model, entrepreneurship, agglomeration economies | |
| **Notes**: The paper shows preliminary results and it is a provisional version. | |

Full bibliographical reference: **Regional policies for innovation: the case of technology districts in italy** by Federica Bertamino, Raffaello Bronzini, Marco De Maggio and Davide Revelli. Forthcoming in *Regional Studies*

Abstract: The paper studies a policy tool implemented in Italy in the last decade to foster local innovation activity called technology districts. First, it examines the characteristics of technology districts and those of the firms within them. Next, it assesses the performance of district firms. In the South of Italy there are more technology districts but they are small, poorly sectorially diversified and far from the economic structure of the area. Firms that did join a district had previously been, on average, larger, more innovative and profitable, and show also higher leverage than the others. After the institution of a district the performance of the firms that joined it did not differ significantly from that of similar firms that did not.

Link: https://www.bancaditalia.it/pubblicazioni/qef/2016-0313/index.html

| | |
|---|---|
| Type: journal article | Contact: raffaello.bronzini@bancaditalia.it |
| Language: English | Open source: no |

Keywords: technology districts; innovation; patent; public policies; matching; *differences-in-differences*

Notes: Working paper version at: https://www.bancaditalia.it/pubblicazioni/qef/2016-0313/index.html

| | |
|---|---|
| **Full bibliographical reference**: **Cataldo R., Grassia M. G., Lauro N. C., Ragazzi E., Sella L.** (2016) "Individual disadvantage and policy performance: The makings of model-based composite indicators", *CNR-IRCrES Working Paper,* 2/2016, ISSN (print): 2421-6798, ISSN (on line): 2421-7158 | |
| **Abstract**: In evaluating a policy, it is fundamental to represent its multiple dimensions and the targets it affects. Indeed, the impact of a policy generally involves a combination of socio-economic aspects that are difficult to represent. In this study, regional training policies are addressed, which are aimed at recovering the huge gaps in employability and social inclusion of weak Italian trainees. Previous counterfactual estimates of the net impact of regional training policies show the mess to observe and take into account the manifold aspects of trainees' weakness. In fact, the target population consists of very disadvantaged individuals, who experience hard situations in the labour market. To overcome this shortfall, the present paper proposes a Structural Equation Model, that considers the impact of trainees' socio-economic conditions on the policy outcome itself. In particular, the ex-ante human capital is estimated from educational, social and individual backgrounds. Then, labour and training policies augment the individual human capital, affecting labour market outcomes jointly with individual job search behaviour. All these phenomena are expressed by a wide set of manifest variables and synthesised by *composite indicators calculated with Partial Least Squares SEM* structural equation models). The makings of SEM are appraised, applied to the case of trainees in compulsory education. | |
| **Link**: http://www.ircres.cnr.it/index.php/it/pubblicazioni?id=116 | |
| **Type**: Working paper | **Contact:** elena.ragazzi@ircres.cnr.it<br>lisa.sella@ircres.cnr.it |
| **Language**: English | **Open source**: Yes |
| **Keywords**: Impact evaluation, labour policies, composite indicators, structural equation models. | |
| **Notes**: a preliminary version of the paper was discussed at the « Data Science & Social Research Conference », 17-19 February 2016, Napoli (IT). | |

| | |
|---|---|
| **Full bibliographical reference**: **Biorci G., Emina A., Puliga M., Sella L., Vivaldo G.** (2016) "Moods of Socio-economic Crisis: Tweet-tales", *IMT Lucca EIC Working Paper Series*, 4/2016, ISSN 2279-6894. | |
| **Abstract**: The widespread adoption of highly interactive social media like Twitter, Facebook and other platforms allow users to communicate moods and opinions to their social network. Those platforms represent an unprecedented source of information about human habits and socio-economic interactions. Several new studies have started to exploit the potential of these big data as fingerprints of economic and social interactions. The present analysis aims at exploring the informative power of indicators derived from social media activity, with the aim to trace some preliminary guidelines to investigate the eventual correspondence between social media indices and available labour market indicators at a territorial level. The study is based on a large dataset of about 4 million Italian-language tweets collected from October 2014 to December 2015, filtered by a set of specific keywords related to the labour market. *With techniques from machine learning and user's geolocalization*, we were able to subset the tweets on specific topics in all Italian provinces. The corpus of tweets is then analyzed with linguistic tools and hierarchical clustering analysis. A comparison with traditional economic indicators suggests a strong need for further cleaning procedures, which are then developed in detail. As data from social networks are easy to obtain, this represents a very first attempt to evaluate their informative power in the Italian context, which is of potentially high importance in economic and social research. | |
| **Link**: http://eprints.imtlucca.it/3519/ | |
| **Type**: Working paper | **Contact**: lisa.sella@ircres.cnr.it |
| **Language**: English | **Open source**: Yes |
| **Keywords**: Big data, social media, Twitter, hierarchical clustering, unemployment. | |
| **Notes**: a preliminary version of the paper was discussed at the « Data Science & Social Research Conference », 17-19 February 2016, Napoli (IT). | |

**Full bibliographical reference**: **Lamonica, V., Ragazzi, E., Sella, L.** (2016) “Antenne sociali per la formazione iniziale: un approccio strutturale per la rilevazione dei bisogni”, AIV – XIX Congresso annuale 2016, 20-22 aprile 2016, Roma (IT)

**Abstract**: Una buona programmazione degli interventi sul territorio, sia per promuoverne lo sviluppo, sia per favorire migliori condizioni di vita ai suoi cittadini, non può esimersi dalla considerazione preliminare dei bisogni che esso esprime. Molto spesso, però, i policy-maker non dispongono degli strumenti necessari per cogliere in tempo reale il cambiamento nel clima sociale sul quale si intende intervenire. Al contrario, gli operatori economici e sociali dispongono di segnali immediati sulla situazione e sull'evoluzione del territorio, ma non sempre sono in grado di trasformarli in informazioni, cioè in giudizi di valore generale e, soprattutto, hanno generalmente una visione solo parziale dei fenomeni, connessa alla specificità della propria azione. Il trade-off fra tempestività e precisione dell'informazione da un lato, e ampiezza e completezza dall'altro, è prerogativa di tutte le organizzazioni complesse e vi si deve porre rimedio con adeguati strumenti di raccolta e circolazione delle informazioni. La progettazione e sistematizzazione di tali strumenti richiede, però, un approfondito studio preliminare del contesto su cui si intende operare a fini di programmazione di policy. Pertanto, il caso di studio presentato in questo contributo intende aprire una riflessione sull'importanza del contesto di riferimento, partendo dal caso specifico dell'individuazione dei fabbisogni dell'utenza in formazione iniziale di un ente di formazione professionale piemontese. L'esperienza di ricerca, avviata negli anni 2014 e 2015, ha permesso la progettazione di un sistema di rilevazione (antenna sociale) finalizzato all'individuazione sistemica dei bisogni degli studenti e delle loro famiglie, per fornire ai decisori politici adeguati strumenti per orientare le proprie scelte. Nello specifico, affinché le azioni formative dirette a soggetti in Obbligo di Istruzione siano pienamente efficaci, è fondamentale riuscire a cogliere i molteplici aspetti dello svantaggio socio-economico che molto spesso caratterizzano i beneficiari di questo specifico percorso educativo. Il progetto mira a tracciare delle linee guida per la creazione di osservatori che utilizzino, in una visione sistemica, le informazioni e i dati capillari forniti dagli operatori economici e sociali sul territorio, per monitorare in tempo praticamente reale l'evoluzione dei bisogni sociali. Uno degli elementi innovativi di questo contributo concerne la scelta metodologica. Infatti, per rilevare la multidimensionalità dello svantaggio iniziale dei giovani in formazione, non ci si limiterà all'analisi più o meno sistematica di alcuni indicatori di interesse, bensì si proporrà l'utilizzo della cosiddetta modellistica ad equazioni strutturali (Tenenhaus et al., 2005). Tali modelli si rivelano particolarmente adatti all'architettura delle antenne sociali, poiché sono in grado di identificare fenomeni multidimensionali (variabili latenti) per mezzo di indicatori compositi, che sintetizzano le diverse dimensioni del fenomeno in oggetto. Esse vengono a loro volta descritte e misurate tramite combinazioni di indicatori di base rilevabili semplicemente (variabili manifeste). In pratica, un indicatore composito rappresenta una variabile latente, cioè un concetto che si riesce a identificare sul piano teorico, ma che non può essere misurato direttamente (ad es. l'occupabilità di un individuo oppure l'atteggiamento di fiducia verso la società). La variabile latente è legata a diversi indicatori elementari, che ne rappresentano in un certo senso il sintomo esterno osservabile (modello di misurazione). L'indicatore composito così definito può essere collegato, a sua volta, ad altri indicatori compositi, in una visione sistemica (modello strutturale), rappresentata da un insieme di regressioni lineari (semplici o multiple) interdipendenti. Nel contesto specifico della formazione iniziale, tale impianto modellistico consente sia di descrivere in modo completo le caratteristiche dello svantaggio dei suoi beneficiari, sia di osservare in modo sistemico come tali caratteristiche influiscano sull'obiettivo finale (sia esso il completamento degli studi, oppure l'integrazione socio-lavorativa) e quali servizi e interventi siano maggiormente in grado di arginarne l'effetto negativo. In conclusione, quest'antenna sociale è stata specificamente progettata per individuare il mutamento dei fabbisogni dei beneficiari della formazione iniziale, ma la sistematizzazione di questo approccio metodologico potrà permettere l'applicazione degli stessi strumenti per rilevare i mutamenti del contesto anche in ambiti differenti. Il fil rouge è dato dalla capacità di fornire indicazioni di policy tempestive, affinché gli attori politici, in differenti contesti, possano agire per (ri)orientare gli interventi, a seconda dei mutamenti

| | |
|---|---|
| rilevati. | |
| **Link**: http://www.cnr.it/peoplepublic/peoplepublic/index/downloadprodotto/i/118661 | |
| **Type**: Conference presentation | **Contact**: elena.ragazzi@ircres.cnr.it<br>lisa.sella@ircres.cnr.it |
| **Language**: Italian | **Open source**: Yes |
| **Keywords**: vocational training, *structural equation models*, profiling techniques | |
| **Notes**: The paper is under revision for publication on “Rassegna Italiana di Valutazione” | |