

The employment effects of Reddito di cittadinanza, before and during the Covid-19 pandemic

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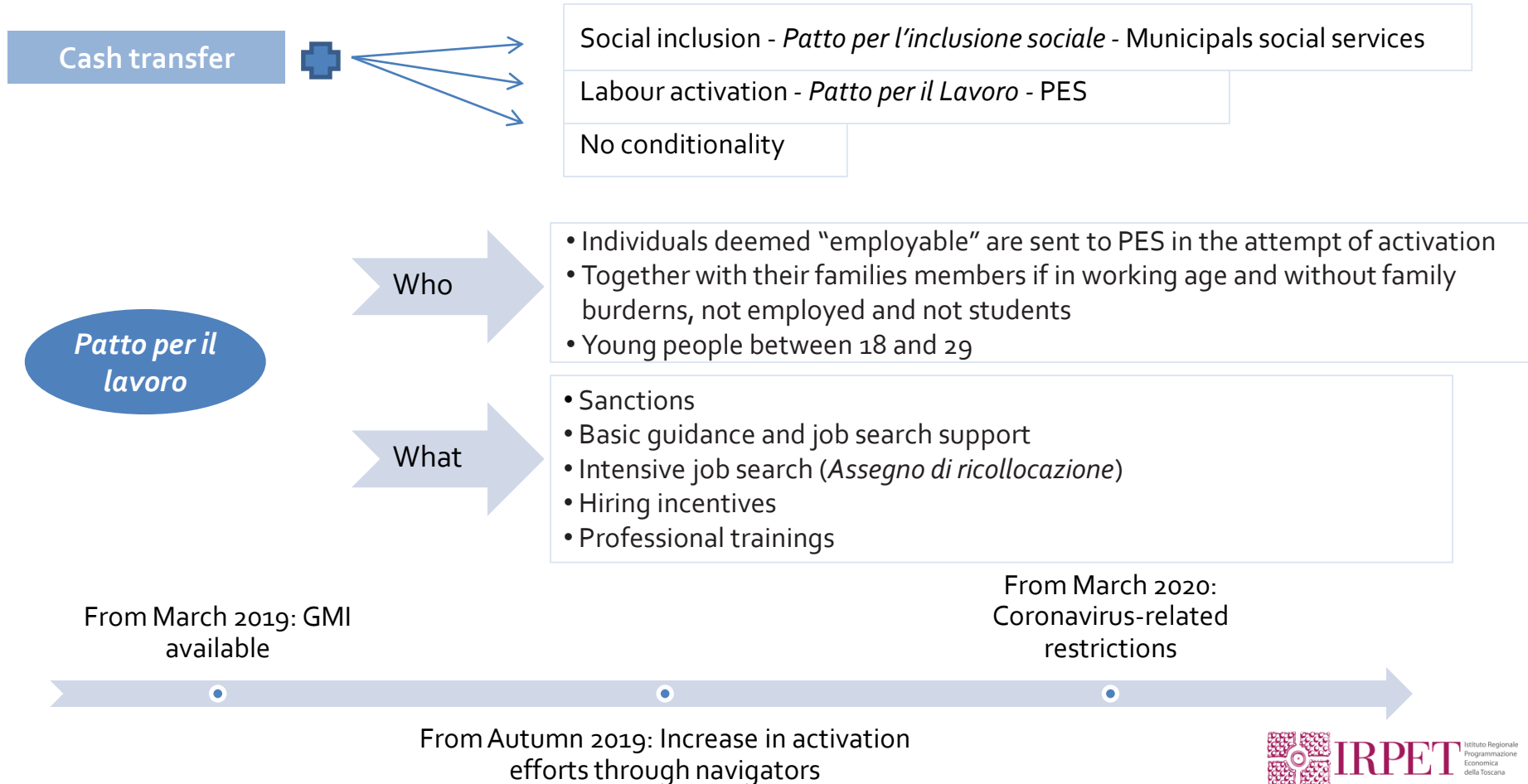
Research outline and novelty of this work

- The aim of our work is evaluating whether the Italian Guaranteed Minimum Income (GMI), called “Reddito di cittadinanza” scheme yields positive **employment effects** for recipients or if traps them into **poverty and welfare dependency**.
- We analyze individuals **registered to Public Employment Services (PES)** that were **admitted to the GMI in Tuscany at different time points during 2019**, for which we observe the **days worked per month in 2017-2020**.
- Focus on **different profiles of recipients** by sex (Female, Male), age group (29-; 30-39; 40-49; 50+) and Citizenship (Italian, Foreign).
- We introduce an additional source of heterogeneity based on the relevance of CVs to the **professions that are more affected by Covid-19 outbreak**, waves of lockdowns and restrictions from March 2020 onwards.
- Causal literature on the heterogeneous **employment** effects of GMI programs is still very scarce. As far as we know, our work is **the first application for Italy**.
- We apply a **DID for multiple time periods and staggered treatment timings** based on Callaway and Sant’Anna (2020).

Lessons from previous literature

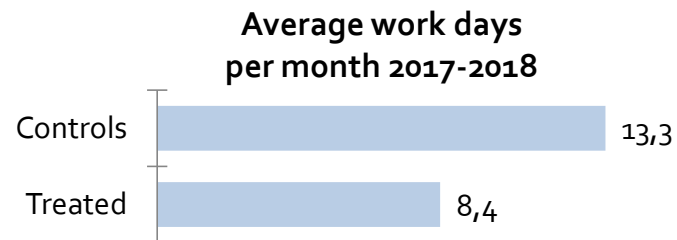
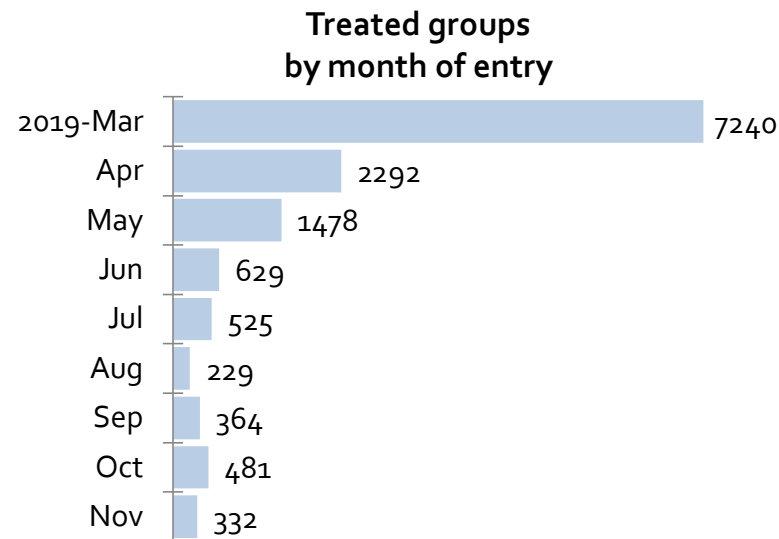
- **Scandinavian countries – Generous social welfare programs:** Bergmark and Backman (2004), Hansen (2009), Rønsen and Skarðhamar (2009), Heinesen et al. (2013) → **GMI to new migrants associated with lower exit rates from benefits and higher recidivism (+welfare dependency)**
- **Germany and UK – Unemployment benefits II:** Wolff and Jozwiak (2007), Bernhard and Kruppe (2012), Hohmeyer and Wolff (2012), Wolff and Nivorozhkin (2012), Cappellari and Jankins (2014), Hohmeyer and Lietzmann (2020) → **UB II leads to higher welfare dependency especially in the presence of children + combination of specific ALMPs, such as vocational training, may lead to positive employment effects**
- **Spain and France – Guaranteed Minimum Income:** Terracol (2009), Ayala and Rodriguez (2010), Bargain and Doorley (2011), De La Rica and Gorjón (2019) → **GMI disincentivises labour supply of women, young single men and less educated workers + combination of specific ALMPs, exp. training, can be fruitful**

The Italian GMI program



The Italian GMI program in Tuscany

- **Data sources** referring to residents in Tuscany:
 - Individual data on Rdc recipients from INPS
 - Individual data on Rdc recipients sent to PES from the Region of Tuscany
 - Official unemployed registered at PES from Sistema Informativo Lavoro (SIL) of the Region of Tuscany
 - Individual data on hiring and firing from SIL
- Overall, 91.171 recipients in 2019, among which 42.424 are sent to PES among which **13,570 registered as unemployed at PES at 01.01.2018** → **Treated** at different time points during 2019 (finite population)
- **Controls:** individuals **registered as unemployed at PES at 01.01.2018 who never receive GMI in 2019-2020** → 27,277 unemployed (random sample of larger population)



DID for multiple time periods and staggered treatment timings

Callaway and Sant'Anna (2020)

- **N units** (i is the index for the i th unit)
- Units partitioned into **multiple groups** depending on when they enter the program:
 - G_1 : group entering the program at $t_1=g_1$ (**March 2019**)
 - G_2 : group entering the program at $t_2=g_2$ (**April 2019**)
 - ...until **November 2019**
 - G_0 : group never entering the program (**Controls**)
- Y is the **outcome variable**: days worked per month
- T points in time from January 2017 to December 2020
- **Treated units** do not leave treatment status or, if they do, they "**do not forget**" (hence one continues to consider them as if they were still under treatment)
- **No anticipation**

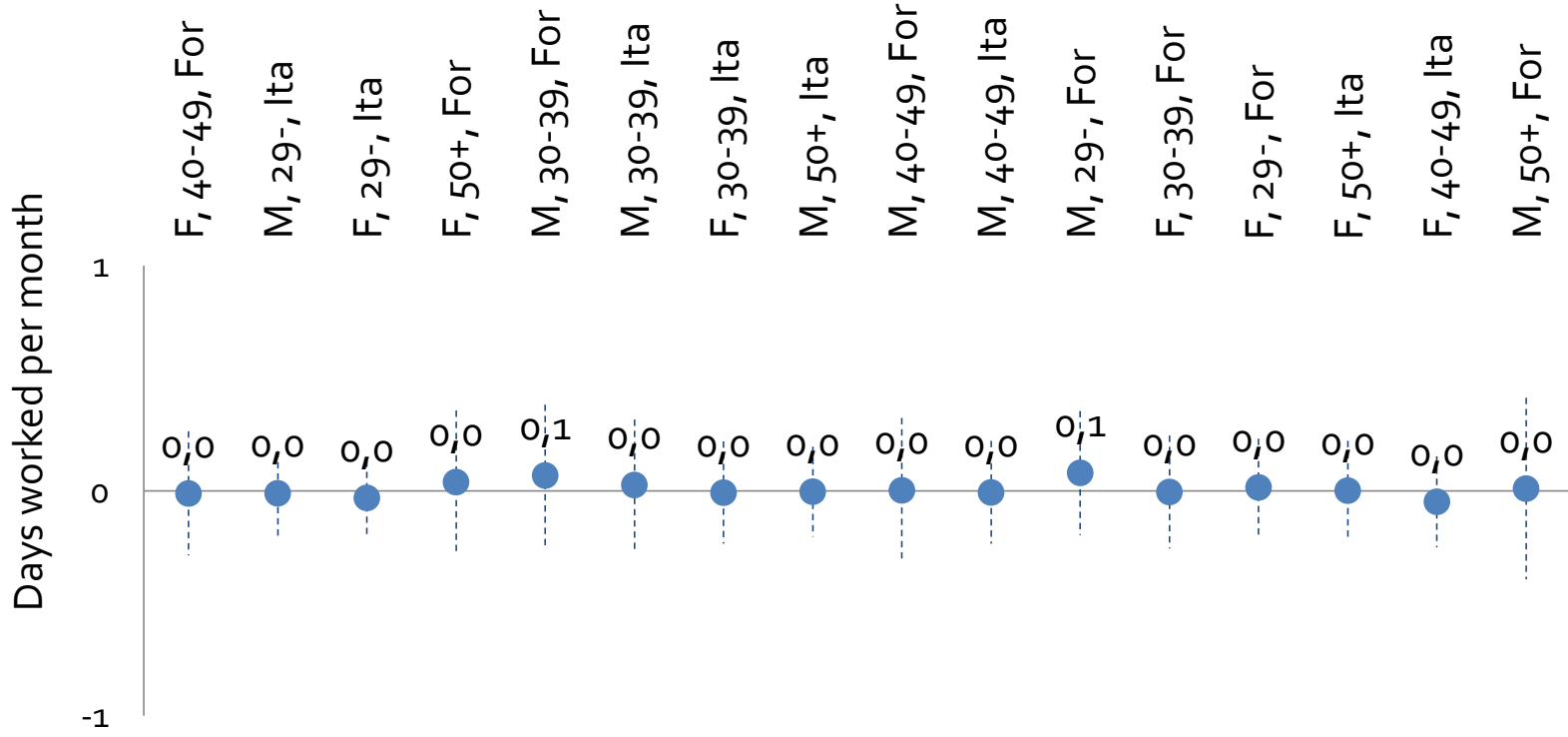
Heterogeneity, identification

- **16 different recipients profiles**, combination of sex, age group (29-; 30-39; 40-49; 50+), citizenship (Italian, Foreign), for which the **program effects** might be **heterogeneous**. Let p_1, \dots, p_{16} denote these profiles
- **48 monthly time points 2017-2020**, first entry happens at $t=27$ for $g_1 \dots$ until g_{35} (=entry in November 2019), g_0 (=no entry)
- Under no anticipation, for each entry group g^* (other than g_0) belonging to each profile p , and for each $t \geq 27$, we state:

PARALLEL TRENDS ASSUMPTION

$$E[Y_{i,t}(o)|g^*,p] - E[Y_{i,t=g^*-1}(o)|g^*,p] = E[Y_{i,t}(o)|g_0,p] - E[Y_{i,t=g^*-1}(o)|g_0,p]$$

Assessing the plausibility of parallel trends



Estimation

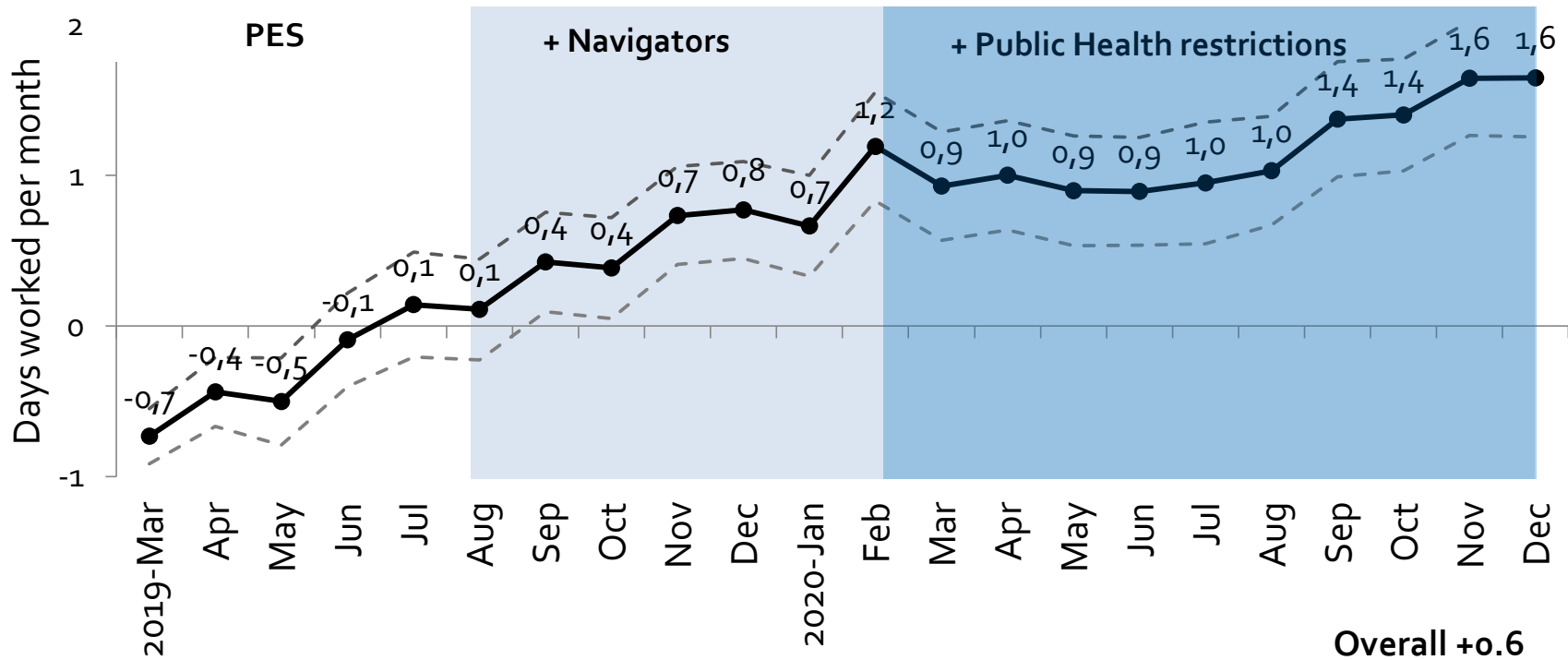
- Base on the previous parallel trend assumption we estimate on observed quantities each **group-time** ATT_{pg^*t} non parametrically, for **each** $t \geq 27$, by means of one of the following estimators:

DIFF. BTW TIME CHANGES ESTIMATOR

$$ATT_{pg^*t} = \{E[Y_{i,t}|g^*,p] - E[Y_{i,t=g^*-1}|g^*,p]\} - \{E[Y_{i,t}|g_o,p] - E[Y_{i,t=g^*-1}|g_o,p]\}$$

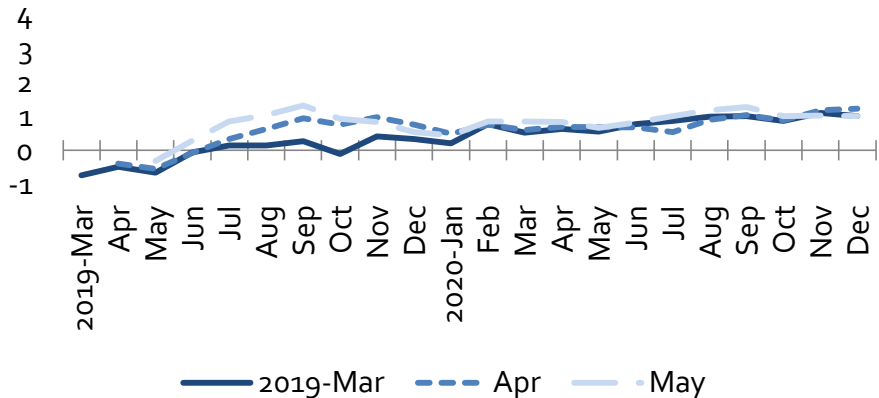
- We, then, average the ATT_{pg^*t} s in meaningful ways to obtain more aggregate causal quantities → **calendar-time or aggregated socio-demographic characteristics**
- Further, we reassess all CVs to establish who had relevant, recent **work experience in retail and tourism**, affected by restrictions againts Covid-19 from March 2020 → we assume that any turnaround from/to retail/tourism occurred under GMI/Control would have occurred the same under the alternative treatment status.

Average of ATTs by calendar month (95% CI)

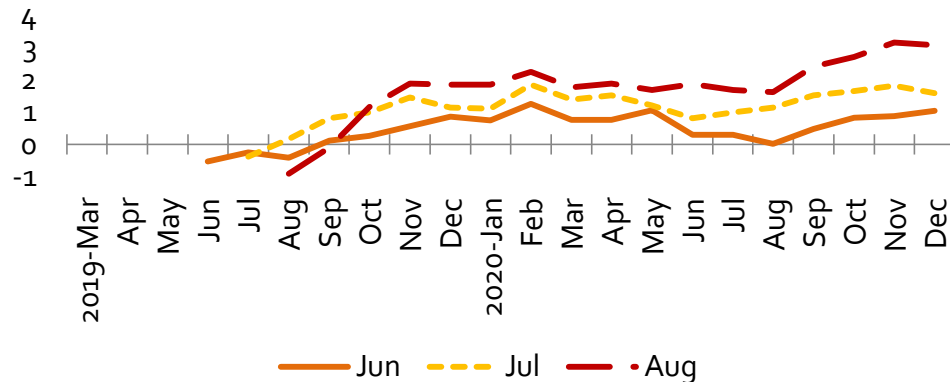


Group-average of ATTs by calendar month

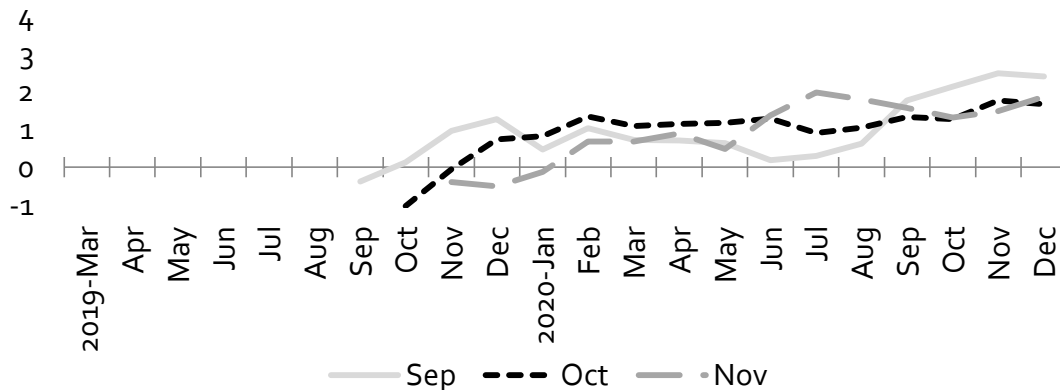
Spring Entrants



Summer Entrants



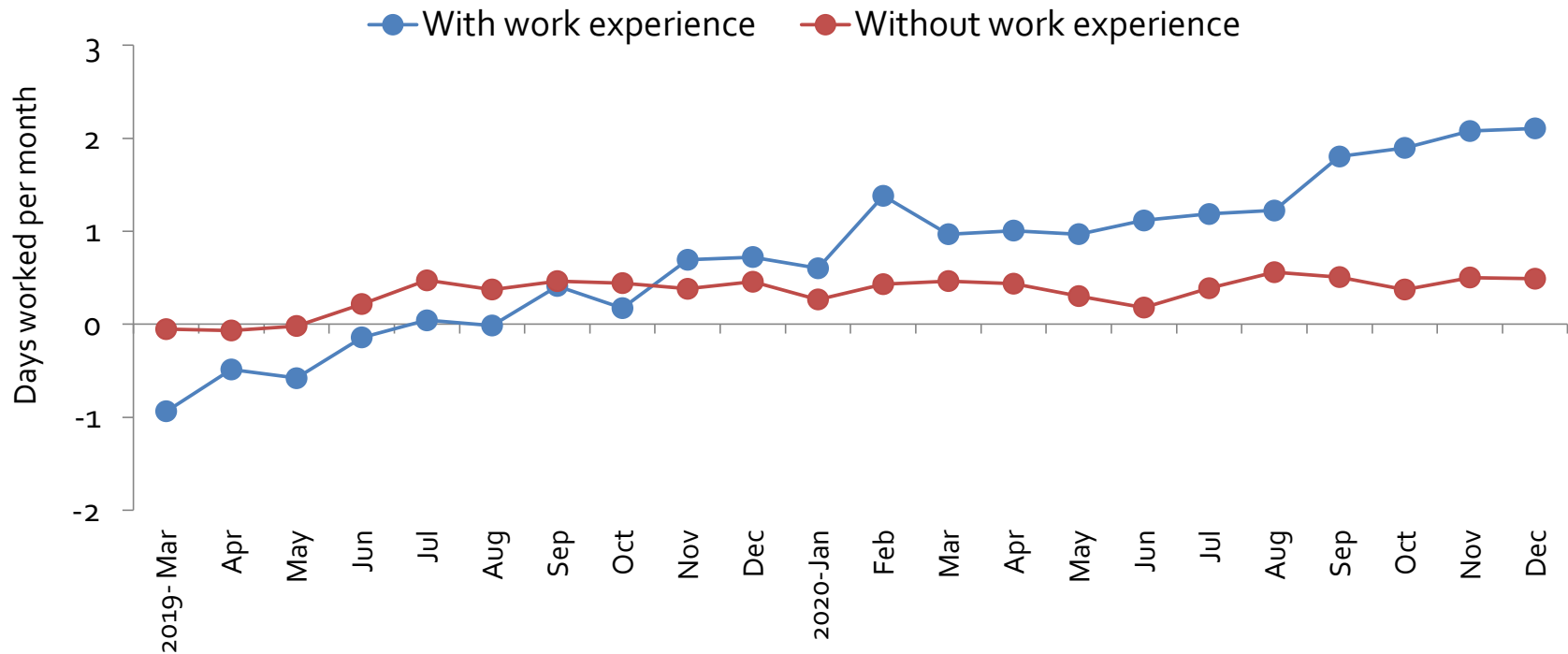
Autumn Entrants



Average of ATTs by relevance of CVs to the retail/tourism (95% CI)

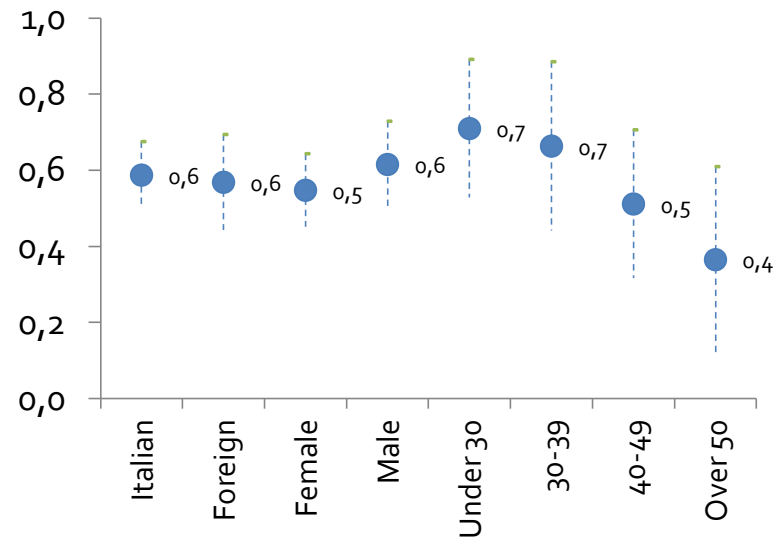
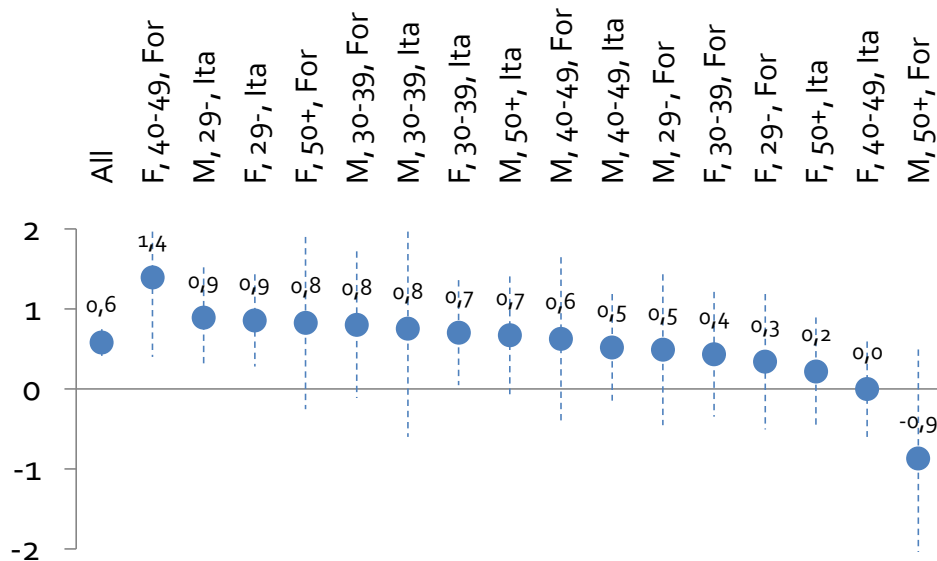


Average of ATTs by work experience (95% CI)



Average of ATTs by socio-demographic profiles (95% CI)

Days worked per month



What we learned and future developments

- On average, no “sofa effect”
- Labour activation policies somewhat increased working days (**for the subset of recipients previously registered at PES!**), only for recipients with **previous work experience** and especially in **low profile professions**
- Assuming 8-hours working days and a net salary of 8 euros: **+0.6 on worked days** means +37 euros per months → **not enough to solve poverty issues**
- The next step in our research could be an evaluation of **welfare recidivism and dependency**