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Even more discouraged? The NEET generation at the age of COVID-19

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Even more discouraged? The NEET generation at the age of COVID-19*

Carmen Aina[a], Irene Brunetti[b], Chiara Mussida[c], Sergio Schicchitano[d]

Abstract

This paper evaluates if and to what extend the risk of becoming Not in Employment, Education or Training (NEET) has worsened during the Covid-19 pandemic in Italy. The analysis is based on a unique dataset from the merging of two sample surveys, the Italian Labor Force Survey and the Institutional Quality Index dataset. We find that the probability of being NEET significantly increased during the pandemic, but heterogeneously between age cohorts and geographical areas. The most affected categories have been young people (aged 25-34) and those living in North-West regions. Females are mostly affected compared to males, especially those experiencing motherhood and living in a Southern province. Investment in education reduces the NEET status, mainly for age-group 25-34 in the South. Participation in the civil society significantly reduces the probability to being NEET. Finally, active policies conducted at regional level are a further educational investment that protect from becoming NEET, although their effectiveness is not significant in the Southern regions. We provide novel evidence to inform policymakers and help building evidence-based policies, tailored on local needs.

Keywords: NEET, Covid-19 pandemic, quality institutions, Italian provinces.

JEL classification: I20, J18, J21

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1. Introduction

A key role in European policy agenda is lowering youth unemployment by effectively engaging as many of Europe's young people in the world of work. This topic is chiefly relevant as the unemployment rate amongst young individuals is consistent and persistent over time, although its distribution is not homogenous between countries. Recent statistics show that the EU-27 average unemployment rate in the age group 15-24 is 16.6%, but, as it has been stated, this percentage ranges from 6.2% of Germany to 29.3%, 35% and 38.3% of Italy, Greece and Spain, respectively. Similarly, the distribution of people Not in Employment, Education or Training (hereafter NEET) confirms this trend, as in the age-group 15-29 the average rate is 12.8%, with 8.2% of Germany and 23.7% of Italy, which registers the worst performance in Europe (OECD, 2020). These figures require the intervention of policy makers to ease the problematic access to the labour market of youth, by monitoring their vulnerable status.

Furthermore, the ongoing economic crisis induced by the Covid-19 pandemic has worsened the plight of young people labour market opportunities. In fact, this cohort has been severely affected compared to others, as was the case in the 2008-13 crisis, since the unemployment rate of individuals aged 15-24 years old heavily increased as well as the share of NEET (European Commission, 2020). Some papers have confirmed an important decline in the living conditions of young people during the crisis in Europe (Ghoshray et al.,2016; Pastore, 2018).

Considering the worsening conditions of youth, it is necessary to better understand the underlying mechanisms to avoid that NEET status can easily become permanent, preventing the achievement of the Sustainable Development Goal (SDG) number 8 of the 2030 Agenda, namely "Decent work and economic growth" for everyone.

Global concerns about the large numbers of young people who are NEET have been also raised by the Italian Prime Minister Draghi during last Social Summit in Porto, suggesting that generational, gender and regional inequalities have to be overcome through more sustainable and equitable growth strategy[1].

In light of this descriptive evidence, we chose Italy as an interesting case study for several reasons, firstly because almost one in four young people are NEET. According to the latest Eurostat data[2],, in the age group 15-34 the share of NEET was equal to 23.8% in 2019, but it has increased up to 25.1% in the second quarter of 2020. Overall in the European countries, during the Covid-19 pandemic, the NEET rate increased by one percentage point in 2020. Secondly, Italy has been one of the countries most affected by the Covid-19, due to the early outbreak of the pandemic in

[1] See https://www.governo.it/it/articolo/porto-social-summit-lintervento-del-presidente-draghi-alla-tavola-rotonda-employment-and.

[2] We refer to http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_20.

Europe. As of June 2021, it is the eighth country in the world in terms of cumulative cases, with about 4.2 million cases, the fifth in terms of the number of deaths, with about 126 thousand[1] and it was the first Western country to adopt rigorous lockdown measures, on March 11 2020 (Barbieri et al., 2020). Moreover, the consequences for the labour market in Italy have been severe, especially for workers at the bottom of the labour income distribution (Aina et al. 2021). Finally, young people had already been hit hard by the previous 2008 financial crisis, particularly in Italy (Ricci and Scicchitano, 2021). The causes behind this poor performance for Italian young people are numerous and especially related to the Italian economic conditions along with the social context. At the micro level, a relevant role is played by socio-economic characteristics and individual behaviour, whereas at the macro level, the most significant factors are linked to high unemployment rates, to skills mismatch between education system and labour market, to rigidity and inefficiencies of the institutions to facilitate school-to-work transition (Pastore et al., 2021; Pastore, 2019; Pastore, and Zimmermann 2019a; 2019b).

In this empirical exercise we aim to provide evidence about the determinants of NEET status in Italy by investigating how the Covid-19 pandemic has worsened the risk of becoming NEET. In doing so, we use quarterly data from the time span of the first quarter of 2019 to the second quarter of 2020, at the turn of the crisis period and during which the lockdown in Italy occurred. We use a unique dataset relying on the merging of two sample surveys. The first is the Italian Labour Force Survey (hereafter LFS) set up by ISTAT, which is the official and largest survey conducted in Italy to monitor the dynamics of the labour market. The second dataset has been constructed by Nifo and Vecchione (2014), by taking inspiration from the World Governance Indicator (WGI) proposed by Kaufmann et al. (2010). From this sample we select the "Voice and accountability" dimension to measure the degree of citizens' participation in social and public life and processes set up to select the governing class, that is defined at province level. As discussed by Nifo and Vecchione (2014), "Voice and accountability" captures the participation in public elections, the phenomenon of associations, the number of social cooperatives and cultural liveliness measured in terms of books published and purchased in bookshops.

The estimates control for individual characteristics, such as gender, age, marital status, education, attendance of regional professional training courses, recipient of state subsidies, and province fixed-effects. Analyses are also run by subgroups (i.e. age-group and geographical macro-areas).

We use the NEET concept as it is preferred as indicator to inform youth-oriented policies on employability, education, training and social inclusion in Europe as well as to measure the progress toward SDG 8.6. Besides, regarding youth unemployment, NEET rate includes young individuals not economically active. The NEET definition adopted in our empirical exercise is the most

conservative one as it comprises only inactive people, excluding unemployed ones, since we are mostly interested in analysing the effect of the pandemic on the weakest category, i.e. the one more at risk of poverty and exclusion.

Our results show that the risk of being NEET has significantly increased during the pandemic outbreak, but heterogeneously between age cohorts and geographical areas, namely the most affected categories have been young people in the age cohort 25-34 and those living in North-West regions, which were the most affected by COVID-19. Females are mostly affected compared to males and this effect is particularly higher for those of experiencing motherhood (25-34) and living in a Southern province. Overall, investment in education reduces the NEET status, mainly for age-group 25-34 and Southern young individuals, which are the ones more at risk of being trapped in this status, especially because of slow school to work transition and poorest labour market conditions. Also, foreigners and monoparental individuals are more likely to be NEET. Participation in the civil society significantly reduces the probability to being NEET. Finally, active policies conducted at regional level (i.e. training courses) are a further educational investment that protect from becoming NEET, although their effectiveness is not statistically significant in the Southern regions, where the NEET share is the highest.

The rest of the article is structured as follows. The next section presents a literature review. In Section 3 we describe the datasets, define our variables of interest, provide some descriptive evidence and discuss the empirical strategy. Section 4 presents results. Section 5 concludes with some policy implications.

2. Literature review

The economic literature that empirically investigates the effects of the COVID-19 pandemic on the labor market is increasing (see Brodeur et al. 2020 for a recent comprehensive survey). Some papers have evaluated the heterogeneous effect of pandemic on the labour market, showing consequences both in the short (Alon et al., 2020a; Botha et al., 2021, Webster et al., 2021) and long term (Baert et al., 2020). Some studies have also estimated the impact of Covid-19 crisis on young workers mainly in the US and the UK (see, for instance, Montenovo et al., 2020; Benzeval et al., 2020; Lemieux et al., 2020; Adams-Prassl et al., 2020)

Regarding Italy, it appears to suffer more than other countries from the effects of the pandemic due to its structural problems (Pastore, 2020). Some papers are related to the effects of Covid-19 pandemic on young workers (e.g. Casarico and Lattanzio, 2020; Bonacini et al., 2021a)

However, the relationship between the Covid-19 pandemic and the specific category of the NEETs has been largely unexplored also in Italy, a country in which, as explained in Section 1, the

phenomenon of the NEET was already important before the onset of the pandemic. The existing literature, indeed, primarily examines the determinants of the NEET before and during the Great Recession.

Some authors adopted a longitudinal perspective in the analysis of the NEET in Italy (Mussida and Sciulli, 2018, and Contini et al., 2019); some others enlarged the analysis to Europe by adopting a cross-sectional analysis (Quintano et al., 2018; Caroleo et al., 2020); others investigated the evolution of the aggregate NEET rate (De Luca et al., 2019, 2020). However, the evidence on the Italian case is still scarce.

Mussida and Sciulli (2018) use the longitudinal Labour Force Survey data gathered by the Italian National Institute of Statistics (ISTAT) to analyse gross annual flows of youths (from 15 to 29 years old) between the states of employed, student, and NEET, as well as to estimate the determinants of NEET flows from 2008 through 2013. They find a significant probability of persisting in the NEET state. They also find that heterogeneity in NEET persistence is mainly explained by a different propensity in educational inflows rather than transitions towards employment.

Contini et al. (2019) use Italian data from a different source: the EU-SILC survey for the four-year period 2008-2011. Using retrospective information regarding the individual monthly labour market status in the previous year, they build sequences of 48 monthly states, thereby providing a detailed and insightful descriptive analysis and estimation of multinomial logit models. They find that the NEET problem is mainly associated with to unemployment except for older females with children, who report themselves mostly as inactive.

Quintano et al. (2018) explore the effect of the Great Recession on the NEET and their characteristics by using two waves of the LFS, 2005 and 2015, before and after the crisis, respectively. The comparison between the pre- and post-crisis conditions highlights that the share of NEETs increased mainly among the low educated young people, as well as among young with low educated parents. According to gender, men resulted more penalized by the recession, while with reference to the territorial districts, young people living in the South suffered the higher increases.

In a European perspective, Caroleo et al. (2020) show cross-sectional differences between states by estimating the determinants of being NEET before and after the Great Recession. They use data from the LFS for 21 European countries in two years, 2007 and 2016. They jointly consider individual characteristics and macroeconomic variables. Their findings show that a problematic school-to-work transition and long-term unemployment have a crucial role in explaining the probability of being NEET. The first problem mainly affects young people between 19 and 24 years of age, while the second one affects those between the ages of 25 and 30.

Finally, De Luca et al. (2019, 2020) analyse the evolution of the aggregate NEET rate, using LFS data. They document the increase in the aggregate NEET rate in Italy and other European countries over the Great Recession. Specifically, for Italy, the intensification of the NEET rate follows a North–South regional divide, decreasing especially for female NEETs in the south of the country (De Luca et al., 2019). A comparison of Italy and Spain is presented in De Luca et al. (2020), showing how early school leaving affects the NEET rates and finding that this relationship is clearer for Italy than for Spain.

Here, we try to fill the gap in the literature by providing novel evidence on the determinants of NEET status in Italy by investigating the effect of the Covid-19 pandemic on the probability of being NEET over the interval age 15-34. We also treat the 15-24 and 25-34 cohorts separately, in order to detect potential differences of the determinants between these two age groups in shaping the exposure to NEET status.

3. Data, sample and method

The empirical study is based on a unique dataset relying on the merging of two surveys. The first is the Italian Labour Force Survey (LFS) gathered by the Italian National Institute of Statistics (ISTAT). This is the largest survey in Italy monitoring the quarterly dynamics of the labour market: each year, it collects information on almost 280,000 households in 1,246 Italian municipalities, for a total of 700,000 individuals. Since we are interested in estimating the effect of the COVID-19 pandemic on the risk of being NEET, we analyse six quarters: from the first quarter of 2019 to the second quarter of 2020. To isolate the effects of the pandemic, as will be seen below, we include in our set of covariates a dummy variable that equals one in the second quarter of 2020 and 0 otherwise. Since, young's life chances are strongly influenced by the quality of institutions, we combined our dataset with the one constructed by Nifo and Vecchione (2014). This second dataset takes its cue from the World Governance Indicator (WGI) proposed by Kaufmann et al. (2010) and containing the Institutional Quality Index (IQI). In particular, the IQI index is structured into six dimensions concerning with some of the major quality characteristics of a national system among which we find the "Voice and accountability" one. In our analysis we select this dimension because, as described by Nifo and Vecchione (2014), it captures for each Italian province the participation rate in public elections, the INVALSI test,[3] the number of social cooperatives, the participation rate in civic and social associations, and cultural liveliness measured in terms of book published.

[3] National Survey of Students' Assessment conducted by the National Institute for the Evaluation of the Education and Training (i.e. INVALSI).

The analyses are based on quarterly cross-sectional data for the sample of young people from the age of 15 to the age of 34. Our working sample comprises 144,354 individual observations over the period of 2019Q1–2020Q2, which are equal to 75,283 and 69,071 for the age group 15-24 and 25-34, respectively.

The empirical strategy relies on a Probit model specification to estimate the probability of being NEET in each quarter as follow:

$$Prob(Y_i = 1|X_i) = \alpha + \beta X_i + \varepsilon_i \quad (1)$$

where Y_i is the dependent variable of the model, which assumes the value of 1 in the individual is NEET, and 0 otherwise; and X_i is the set of covariates. As stated in Section 1, the NEET definition applied is the most conservative one, as we include only inactive young individuals, without considering unemployed ones. Explanatory variables may be grouped into supply determinants reflecting individual and provincial characteristics: (1) gender, (2) age, (3) education, (4) province of residence, (5) citizenship, (6) family features/household structure (marital status, household type), (7) regional training attendance, (8) the dummy variable for unemployment benefit (9) province *civil society index* as a dummy equal to 1 for values above the 3rd quartile of the entire distribution. As explained above, we include a dummy variable to account for the COVID-19 pandemic. We also consider quarterly dummy variables in our set of covariates.

Table I reports the descriptive statistics of the dependent and explanatory variables for the whole sample, the 15-24 and 25-34 sub-group (columns I, II and III, respectively). In our population, about the 17% of individuals are NEETs but, if we look at the two sub-groups of age, we observe the highest percentage (20%) is shown by the second one (25-34 years old).

The gender composition is balanced as females are about 49%. We consider four educational attainment levels:[4] no education, lower secondary school, upper secondary school, and graduate. Around half of our sample attained upper secondary education (46%), a lower percentage had no education or attained lower secondary education (around 36%), and approximately 17% achieved a degree (or above). We also control for citizenship, and around 88% of the sample is Italian. As for family features, we control for family status (single or married) and household type: single (around 8% of the sample), couple with kids (the strong majority, around 70%), couple without kids (7%), mono-parental mother (12.4%), and mono-parental father (only 2.6%). The portion of young people receiving unemployment benefits is 1.3%, whereas the one who achieves regional training is 4.4%.

[4] Educational dummy indicators refer to the highest successfully completed educational attainment of the individual. The educational classification used to build these indicators is the ISCED 97.

The geographical differential, which is a structural characteristic of the Italian labour market (Bertola and Garibaldi, 2003), is described in the descriptive statistics by four dummy variables for geographical area of residence classified according to the NUTS system,[5] i.e., North-West, North-East, Centre, and South/Islands. Approximately 44% of our sample lives in the North, about 19% in the Centre, and the remainder lives in the South of Italy. Instead, to better capture the heterogenous geographical characteristics, namely different labour market opportunities and infrastructures, our estimates rely on NUTS3 level, by including province dummies. Accordingly, this empirical strategy allows us to correlate these geographical differences with the NEET share at province level.

[TABLE I ABOUT HERE]

In Italy, the share of NEET shows huge regional differences (ISTAT, 2019). Thus, it is worth putting the investigation also at geographical level. Comparing Figures I and II that report the share of NEET by province level for the 2nd quarter of 2019 and 2020, respectively, we observe that, in line with other studies (Ripamonti and Barberi, 2021), Southern provinces are affected by the highest share of NEET and in particular the provinces of Campania, Sicily and Apulia. In addition, from 2nd quarter of 2019 to 2nd quarter of 2020 the share of NEET increased in all Italian macro-areas, but particularly in the Southern provinces, in the Islands, and in the North-West provinces.

[FIGURE I ABOUT HERE]

[FIGURE II ABOUT HERE]

Similar figures are provided for the same quarters with respect to the age group 15-24 (Figures III and IV) and 25-34 (Figures V and VI), to underline differences in this indicator not only by province but also by age. In all Italian provinces, the age group 25-34 is characterized by a higher share of NEET suggesting that this group is the most affected one. Looking at the differences in terms of time, from 2nd quarter of 2019 to 2nd quarter of 2020 for both sub-groups a worsening of the phenomenon is evident especially for Southern provinces and for Islands.

[FIGURE III ABOUT HERE]

[5] NUTS is the acronym for "*Nomenclatura delle unità territoriali statistiche*". Specifically, we refer to the first level of disaggregation, NUTS1, corresponding to the macro-region. According to this classification, there are four NUTS1 for Italy: North-West, North-East, Center, and South (and Islands).

[FIGURE IV ABOUT HERE]

[FIGURE V ABOUT HERE]

[FIGURE VI ABOUT HERE]

Finally, with reference to the *civil society index*, the mean is equal to 0.53 in a range from 0 to 1. This proxy helps us to link social and civic capital to NEET share. In particular, we can underline how NEET individuals are affected by the degree of civic engagement, due to its role in fostering the formation and development of skills, values, norms and beliefs as well as in affecting the functioning of the school system (Milligan et al., 2004). Figure VII reports the distribution of the *civil society index* in 2019, highlighting considerable differences across provinces, with the areas of North-East and Centre reporting the greater values compared to the Southern regions and Islands. From this picture, it is noticeable that this distribution is negatively associated with the one of NEET, confirming the positive role of civic capital in promoting school participation.

[FIGURE VII ABOUT HERE]

4. Results

In this section, we present the results of the empirical strategy described in Section 3. Table II shows the average marginal effects (AMEs hereafter) of the probability of being NEET for the sample of youth aged from 15 to 34, examining the short-term consequences of COVID-19 Italy. Specifically, column (I) reports the estimates for the overall sample of youth, while columns (II) and (III) separately for the age groups 15-24 and 25-34, respectively.

The COVID-19 dummy, that captures the first quarter entirely exposed to COVID-19 (2020Q2) suggests that the pandemic has clearly increased the overall probability of being NEET of about 3.8 percentage points (hereafter p.p.). Interesting, we note that the raise in the probability was higher for the 25-34 age group (+5.3 pp., column II), compared to the relatively younger 15-24 (+2.8 p.p., column I). The AME for females highlights that they are more likely to be NEET (about 8 p.p.) (Mussida and Sciulli, 2018; Quintano et al., 2018; Contini et al., 2019). Nevertheless, the risk of being NEET is not equally distributed between age cohorts, indeed in the 25–34 age bracket, the AME is double, but the relatively higher probability if being NEET for relatively older women is supported by the literature (see, for instance, Caroleo et al., 2020).

The AMEs for the household type offer interesting insights. Monoparental households and couples with children have higher chances of being NEET with respect to couples without children or singles or (i.e., reference category); more specifically, and for the total sample (column I), the AMEs range from 2.3 p.p. for couples without children to 12 p.p. for single fathers (and 10 p.p. for single mothers and couples with children). The existing evidence pinpoints only the disadvantage of single women and in couple (see, for instance, Caroleo et al., 2020), while here we add evidence for a wider range of household types. Being foreigner enhances the probability of being NEET by 10 p.p. compared to Italians. In addition, and as expected, individuals with a higher level of education are less likely to being NEET, ceteris paribus: being graduated reduces the probability of being NEET of about 20 p.p. with respect to individual with less than lower secondary school. Notably, looking and the disaggregation by age, we note that the advantage is stronger for the 25-34 age group with respect to the 15-24 (-25.1 pp. and -11.9, respectively). Also in this case, education as a form of protection is supported by the existing literature on Italy (see Section 2).

Having received a subsidy increases the probability of being NEET of about 16 p.p. and being involved in a regional training reduces it of about 3 p.p, suggesting. that active labour market policies (ALMP) appear to be effective in reducing the share of NEET. Interestingly, we note that the ALMP seem to be significant for individuals in the 25-34 age-group only, since they reduce their probability of being NEET of about 5 p.p. (while the AME is not significant for the 15-24 age group).

The *civil society index* is negatively associated with the probability of being NEET. Interestingly, in this case, the index is negative and significant for individuals in the 15-24 age group only (-7 p.p.), underlying an environment characterized by a greater degree of public spirit generates positive externalities to young people, namely being more active into the labour market.

Finally, from the dummy variables for NUTS3-level (provinces), in line with expectations, we note that provinces in the South are mainly exposed to high share of NEET, since they are the area with the greater early school leaving rates and worst labour market opportunities. In particular, *Caltanissetta* in the *Sicilia* Region shows the highest probability of being NEET, followed by other southern provinces, i.e. *Catania*, *Palermo*, *Trapani*, in the *Sicilia* Region and *Benevento* in the *Campania* Region.[6]

While the literature confirms the disadvantage of the South of Italy, in this work we offer a more detailed and disaggregated geographical level of analysis.

[TABLE II ABOUT HERE]

[6] For the sake of brevity, we do not report the AMEs for provinces. These are available upon request.

[TABLE III ABOUT HERE]

In Tables III we explore heterogeneous effects of COVID-19 by geographical macro-areas (North-West, North-East, Centre, and South), using the same specification as in Table II. First, individuals in the North-West Regions are the most affected by the pandemic (+ 5 p.p.) with respect to individuals in the other areas. The probability of being NEET during the crisis was already increasing during the first quarter of 2020 only for individuals in this area of about 2 p.p. The AME of females is highest in the South (+ 9.9 p.p.). Being foreigner is positively associated with the probability of being NEET. Notably, the magnitude changes across macro-regions. The AMES reduce from around +10 p.p. in the Northern regions to +3.1 p.p. in the Southern ones. Couples without child are more likely to being NEET (with respect to singles) only in the Centre and in the South (+10.4 p.p. and +4.3 p.p., respectively). Single fathers (mothers) show a higher probability to being NEET in the South (+14 p.p.), while for single mothers it happens in the Centre (+11 p.p.). With respect to all levels of education, the highest effect is in the South, where graduate individuals have a 30 p.p. lower probability of being NEET. The role of education in preventing the risk of being NEET is therefore stronger in the weakest area of the country. Interestingly, regional training is effective in any areas (the effect is highest in the North-West), with the exception of the South: this is in line with other studies that the effect of family background on labour market outcomes of children is more relevant in the southern Regions (Bonacini et al. 2021b). Having received a subsidy increases the probability of being NEET everywhere and the Centre shows the highest vale (+17 p.p.). *Civil society index* is not significant in the North-East and evidences the highest effect in the South.

5. Conclusions

In this article we have provided novel evidence about the determinants of NEET status in Italy by investigating whether and to what extend the risk of becoming NEET has worsened during the Covid-19 outbreak.

During the second quarter of the 2020 pandemic, results show that the probability of being NEET significantly increased by 3.8 p.p. Individuals in the 25-34 age group and located in the North-West are the most affected during the pandemic (+ 5 p.p.). The likelihood of being NEET was already increasing during the first quarter of 2020 only for those individuals.

An active participation in civil society is negatively associated with the probability of being NEET, particularly for individuals in the 15-24 age group and in the South, underlying that an environment characterized by a greater degree of public spirit generates positive externalities to young people, pushing them to enter into the labour market.

Having received a subsidy increases the probability of being NEET everywhere, particularly in the Centre, while being involved in a regional training reduces it of about 3 p.p. on average: it means that active labour market policies (ALMP) seem to be lightly associated with a reduction of the share of NEETs. However, ALMP are effective for individuals in the 25-34 age group only and they are not significant in the South, where they would be more useful because a considerable amount of NEET is concentrated right there.

Finally, the role of education, especially high education, in preventing the risk of being NEET is clear. The highest effect is in the South, where graduate individuals have a 30 p.p. lower probability of being NEET. Thus, the role of education in preventing the risk of being NEET is therefore stronger right in the weakest area of the country, suggesting that investment in human capital is still the best way to get away from the risk of marginalization.

Our results make clear that ALMPs may be relevant in reducing the share of NEET. Among the common ALMPs used to reduce the youth unemployment rate and to facilitate school-to-work transitions by promoting employment, education, or traineeships for NEETs, is the Youth Guarantee program. As discussed by Pastore (2015) this program alone fails to create new jobs for young people. For the Youth Guarantee to be efficient and effective, it must be accompanied by a profound transformation of the entire school-to-work transition system, involving not only public employment services, but also education and training systems.

Moreover, a great contribution to finance policies in support of young people and to improve the labour market may come from the Next Generation European Union funds. It is planned that Italy, which strongly called for more EU financial resources in the face of the current crisis, should receive the largest share: 209 billion euros, which amount to the 28 percent of the entire rescue fund. The Italian Recovery and Resilience Plan (RRP) that is being completed translates this opportunity into action. It amounts to over 300 billion euros, by adding the funds allocated in the 2021–2026 budget planning to the support coming from the Next Generation EU program. The RRP, right from the start, recognises that the current crisis has hit young people hard and that Italy is the EU country with the highest rate of individuals between 15 and 29 years old who are NEET. One of the objectives of the PNRR is precisely to reduce the share of individuals NEET. The plan envisages the integration of other measures already in place in Italy, such as the dual system and the various measures to strengthen the skills of adults. The aim is then to overcome quality differences

in the services provided at provincial level, by setting timely interventions in line with the local labour demand. In line with our finding about civil society index, there is a project of extending universally the civil service amongst young people as a tool for enlarging their soft skills and the degree of commitment to civil society, thus contrasting NEET status. Our study shows that the NEET problem has a strong geographical location and is still far from being solved: the current crisis has further aggravated it, thus contributing to exacerbate old inequalities. We provide novel evidence to inform policymakers and help building evidence-based policies, tailored on local needs.

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Tables and Figures

Table I: Descriptive statistics

	(I)		(II)		(III)	
Variable	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Neet	.172	.377	.132	.339	.207	.405
Female	.486	.499	.480	.499	.493	.499
Age						
15-24	.474	.499	–	–	–	–
25-34	.525	.499	–	–	–	–
Foreigner	.121	.326	.085	.279	.153	.359
Education						
None	.0141	.118	.010	.099	.018	.132
Lower secondary school	.353	.478	.501	.499	.220	.414
Upper secondary school	.460	.498	.436	.496	.481	.499
Graduate	.171	.377	.051	.220	.280	.449
Household type						
Single	.081	.273	.021	.145	.135	.341
Couple with child	.699	.458	.790	.406	.617	.486
Couple without child	.070	.254	.007	.088	.125	.331
Single father	.026	.157	.030	.171	.021	.143
Single mother	.124	.329	.149	.356	.102	.302
Regional training	.044	.206	.022	.146	.065	.246
Unemployment benefit	.013	.114	.006	.080	.020	.138
Civil society index	.533	.235	.531	.236	.534	.234
Geographical area of residence[(a)]						
North-West	.252	.434	.252	.434	.252	.434
North-East	.184	.387	.185	.388	.182	.385
Center	.189	.391	.186	.389	.191	.393
South	.188	.379	.187	.378	.188	.380
Observations	144,354		75,283		69,071	

Note: [(a)] In our estimates, we control for provincial dummies, NUTS 3 disaggregation level.
(I) is the specification for the total sample; (II) is the specification for the age group 15-24; (III) is the specification for the age group 25-34.
Source: Authors' elaborations from 2019Q1-2020Q2 ISTAT data.

Table II: Determinants of the risk of being NEET, AME

	I	II	III
COVID-19	.038***	.028***	.053***
	(.003)	(.004)	(.005)
Female	.080***	.009***	.160***
	(.002)	(.002)	(.003)
Age 2534	.093***	_	_
	(.002)		
Foreigner	.102***	.072***	.093***
	(.003)	(.004)	(.004)
Education			
Lower secondary school	-.135***	-.149***	-.086***
	(.007)	(.010)	(.010)
Upper secondary school	-.138***	-.102***	-.182***
	(.007)	(.010)	(.010)
Graduate	-.204***	-.119***	-.251***
	(.007)	(.011)	(.010)
Household type			
Couple with child	.097***	-.001	.123***
	(.004)	(.008)	(.005)
Couple without child	.023***	.121***	.018*
	(.006)	(.015)	(.007)
Single father	.119***	.030***	.135***
	(.007)	(.011)	(.011)
Single mother	.103***	.017*	.112***
	(.005)	(.009)	(.006)
Regional training	-.031***	.008	-.055***
	(.005)	(.008)	(.006)
Unemployment benefit	.163***	.135***	.167***
	(.007)	(.012)	(.008)
Civil society index	-.051***	-.075***	.002
	(.019)	(.023)	(.030)
Quartely dummies	Yes	Yes	Yes
Provincial dummies	Yes	Yes	Yes
Observations	143,595	74,866	68,729

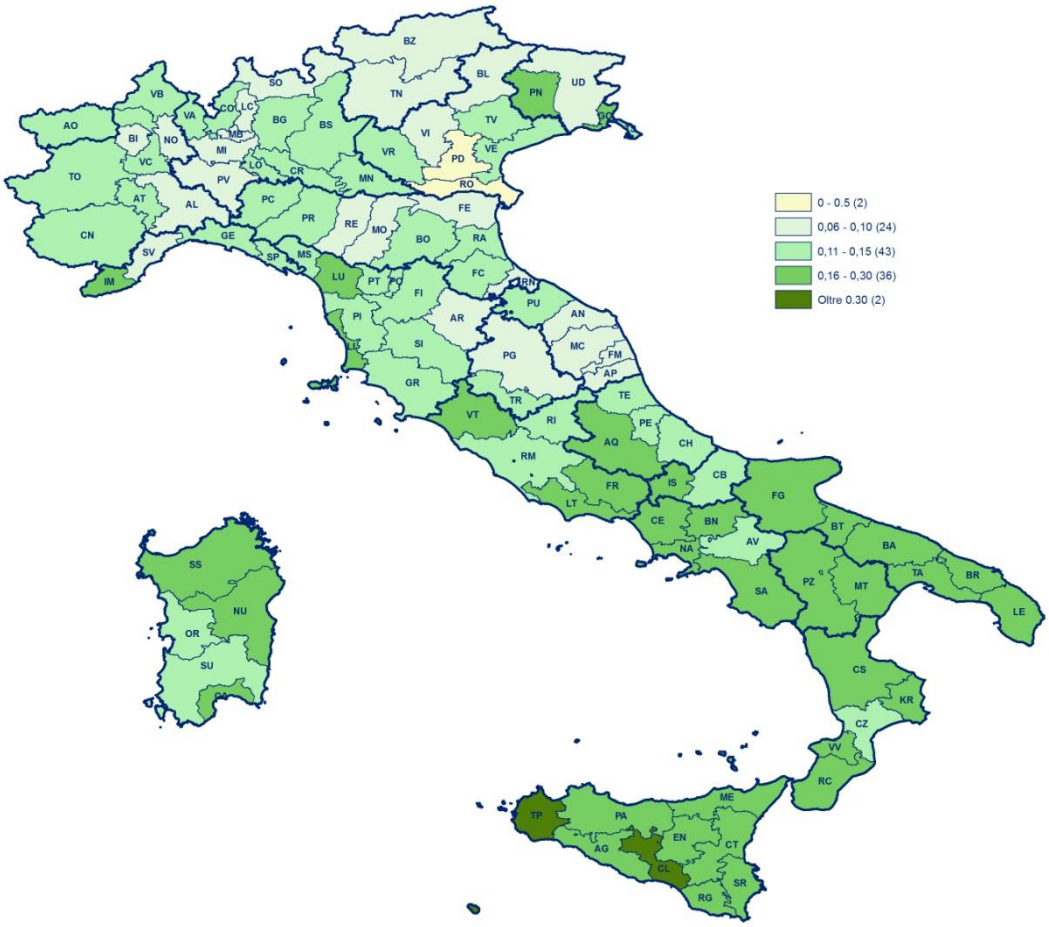
Notes: Reference category: 15-24 years old; single; no education.
Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.
(I) is the specification for the total sample; (II) is the specification for the age group 15-24; (III) is the specification for the age group 25-34.
Source: Authors' elaborations from 2019Q1-2020Q2 ISTAT data

Table III: Determinants of the risk of being NEET by macro-area, AME

	North-West	North-East	Centre	South
COVID-19	.049***	.0031***	.033***	.035***
	(.006)	(.006)	(.007)	(.006)
Female	.064***	.080***	.060***	.099***
	(.003)	(.004)	(.004)	(.004)
Age 2534	.045***	0.57***	.066***	***
	(.004)	(.004)	(.005)	(.004)
Foreigner	.102***	.109***	.091***	.031***
	(.004)	(.004)	(.006)	(.008)
Education				
Lower secondary school	-.104***	-.124***	-.138***	-.178***
	(.013)	(.013)	(.016)	(.013)
Upper secondary school	-.108***	-.114***	-.123***	-.205***
	(.013)	(.013)	(.016)	(.013)
Graduate	-.144***	-.151***	-.177***	-.318***
	(.014)	(.014)	(.017)	(.014)
Household type				
Couple with child	.078***	.092***	.096***	.095***
	(.008)	(.008)	(.009)	(.008)
Couple without child	.011	.007	.104***	.043***
	(.010)	(.010)	(.013)	(.013)
Single father	.095***	.098***	.111***	.138***
	(.013)	(.013)	(.016)	(.014)
Single mother	.080***	.091***	.112***	.102***
	(.009)	(.009)	(.011)	(.009)
Regional training	-.051***	-.031***	-.039***	.003
	(.008)	(.008)	(.011)	(.009)
Unemployment benefit	.157***	.159***	.172***	.157***
	(.013)	(.011)	(.016)	(.013)
Civil society index	-.018***	.002	-.039***	-0.96***
	(.004)	(.004)	(.005)	(.015)
Quartely dummies		Yes		
Observations	29,420	35,950	25,436	52,789

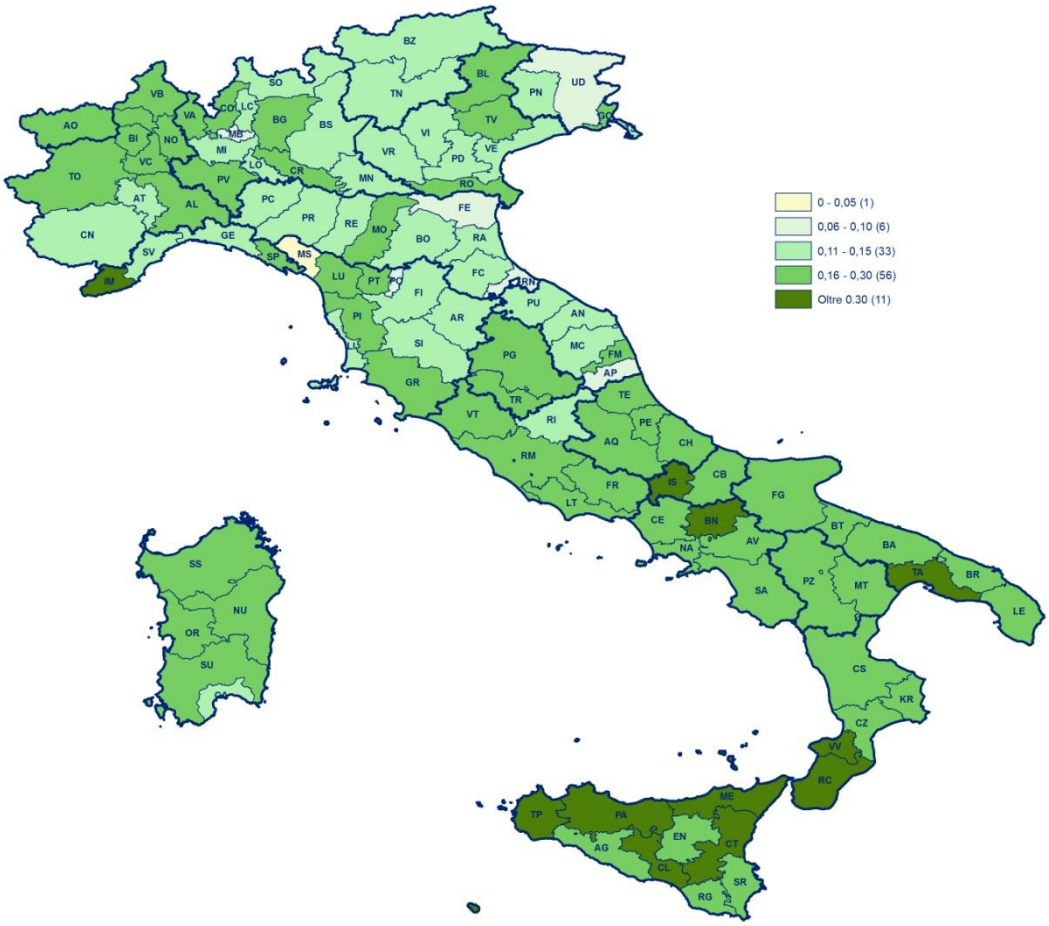
Notes: Reference category: 15-24 years old; single; no education.
Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' elaborations from 2019Q1-2020Q2 ISTAT data

Fig. 1. Share of NEET by province level for the 2nd quarter of 2019



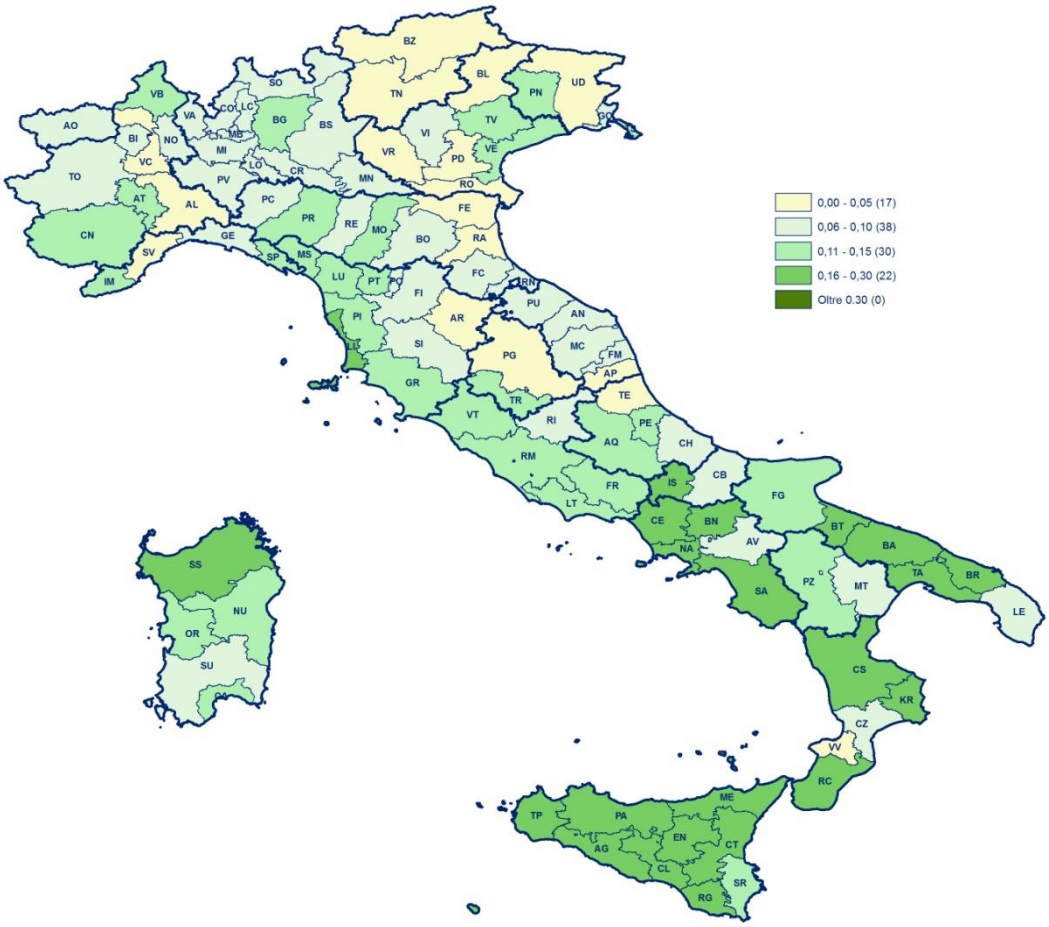
Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 2. Share of NEET by province level for the 2nd quarter of 2020



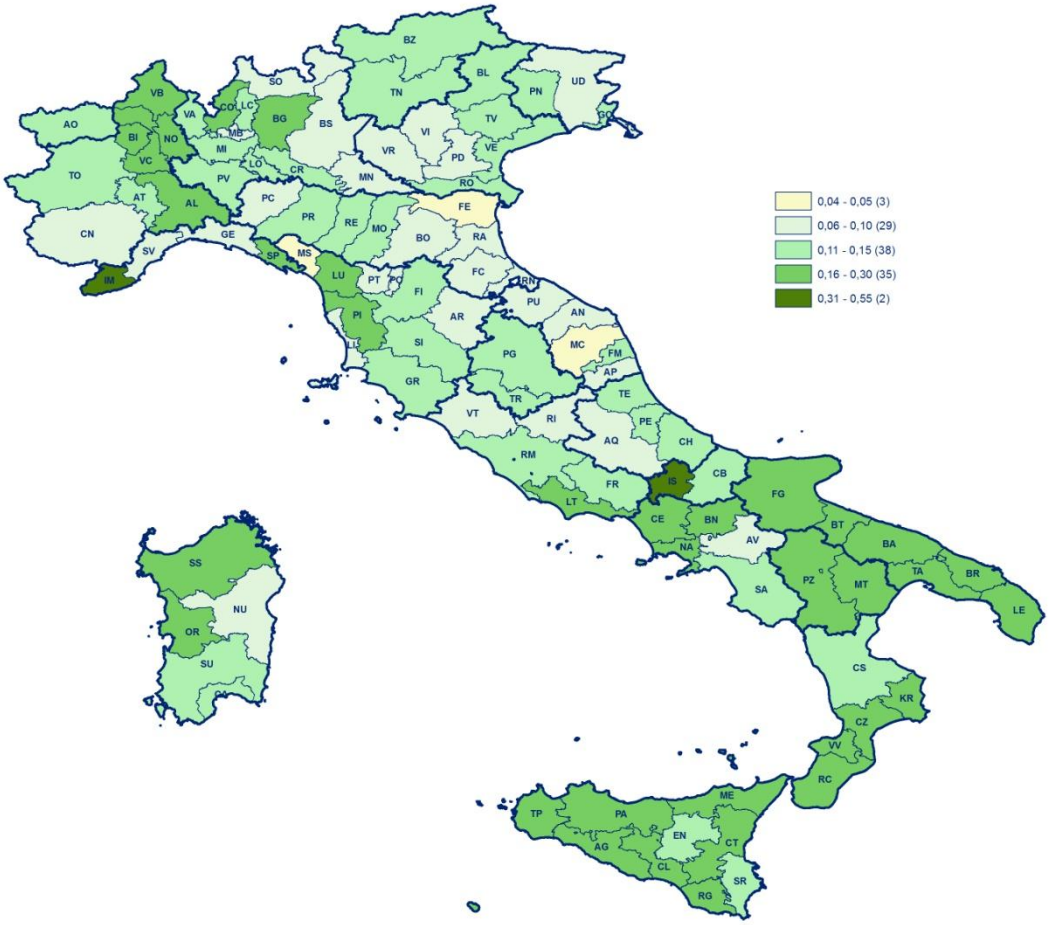
Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 3. Share of NEET by province level for the 2nd quarter of 2019: age group 15-24



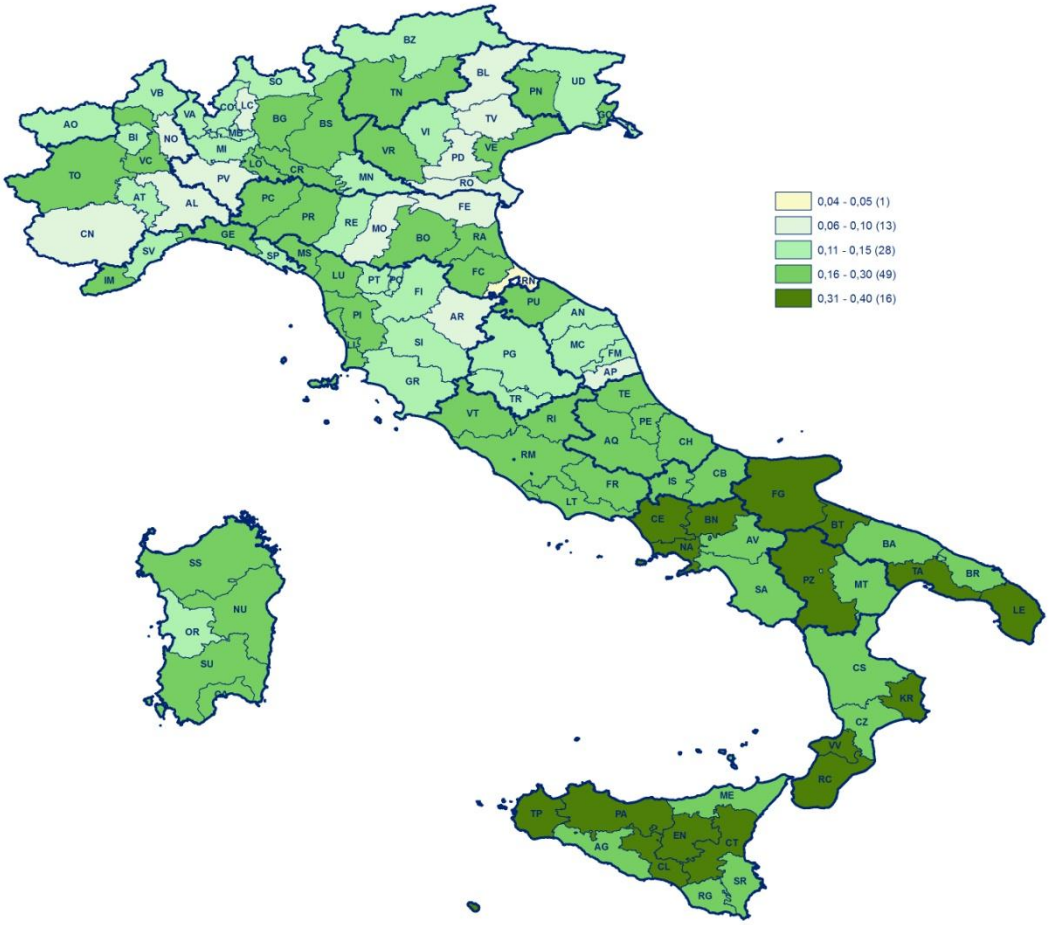
Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 4. Share of NEET by province level for the 2nd quarter of 2020: age group 15-24



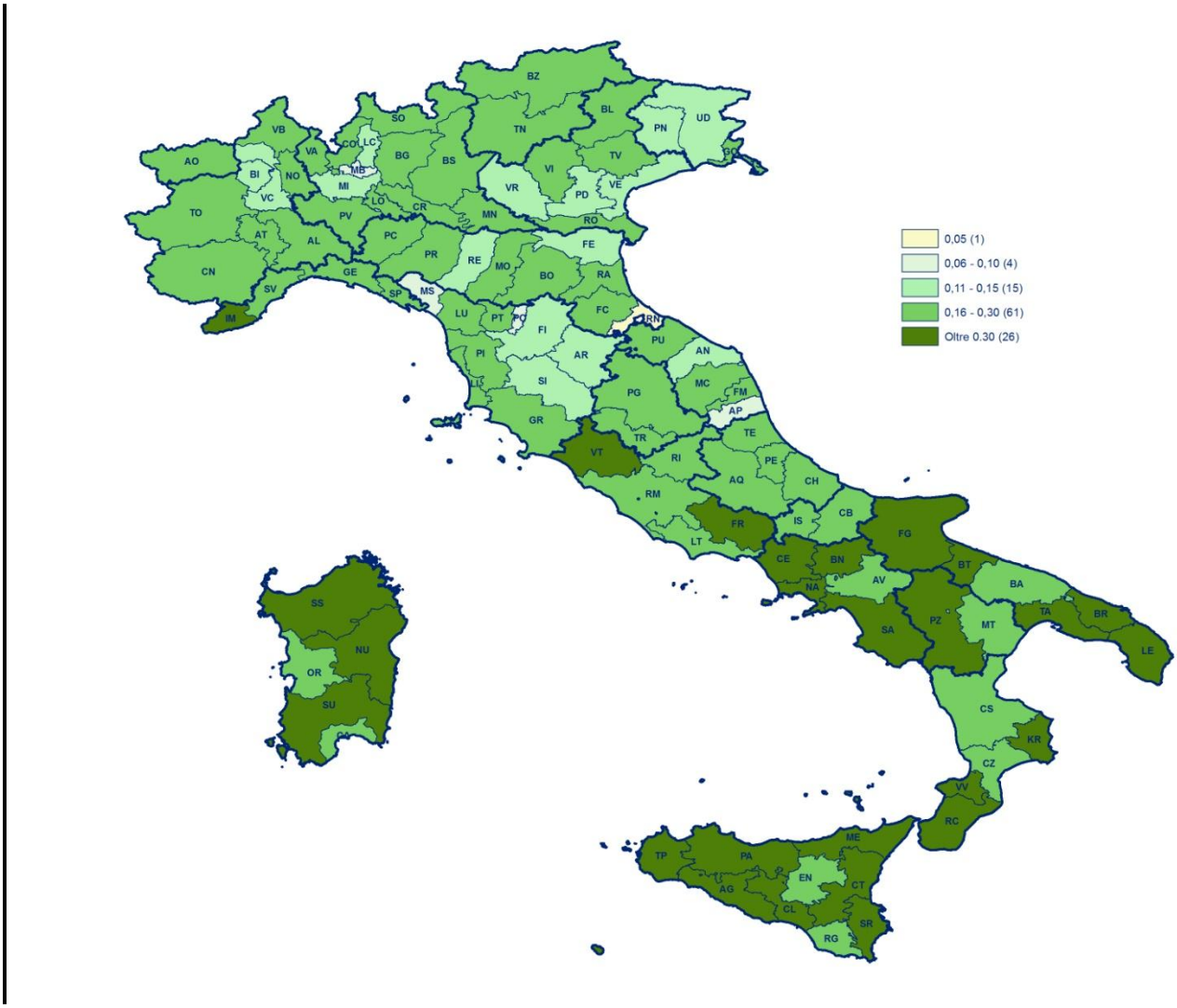
Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 5. Share of NEET by province level for the 2nd quarter of 2019: age group 25-34



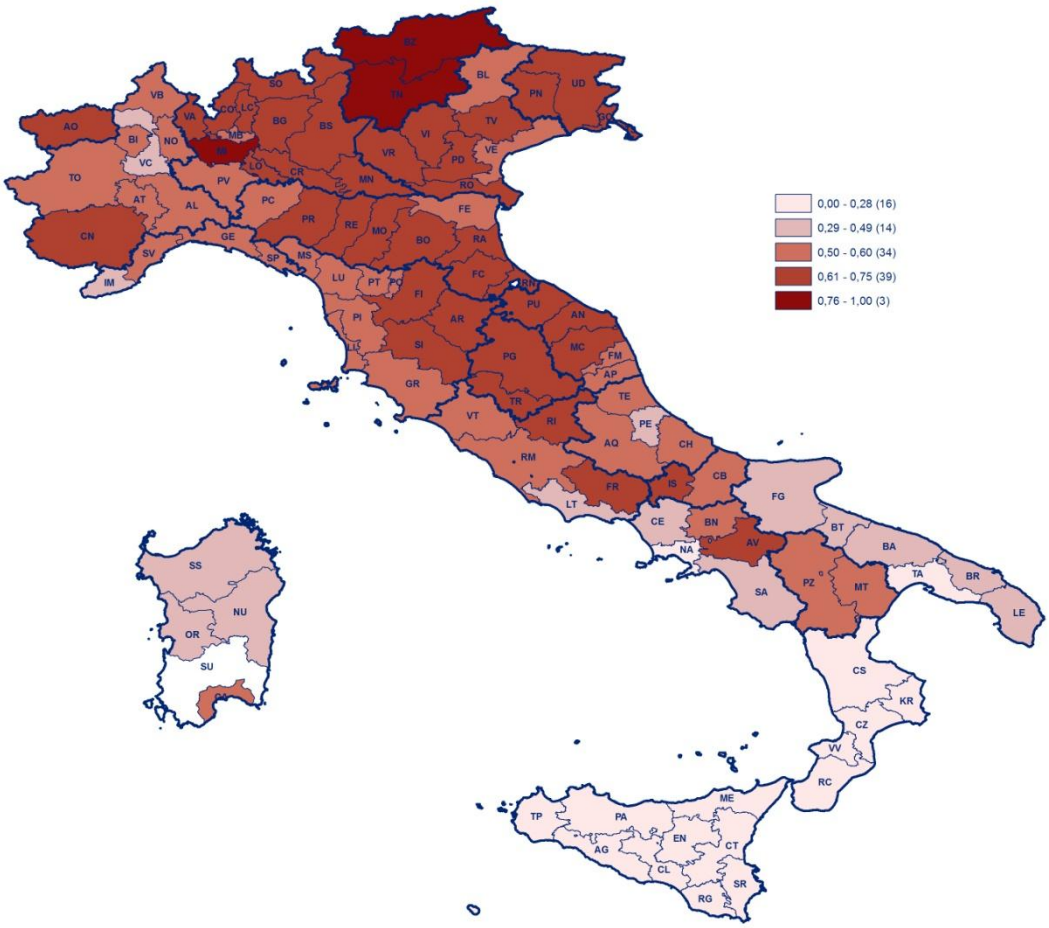
Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 6. Share of NEET by province level for the 2nd quarter of 2020: age group 25-34



Source: Authors' elaborations from 2019Q-2 and 2020Q2 ISTAT data

Fig. 7. distribution of the civil society index y province in 2019



Source: https://sites.google.com/site/institutionalqualityindex/home and Nifo and Vecchione (2014).