

Geographical inequalities and subjective wellbeing: the Italian case

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Abstract

We investigate the relationships between geographic inequality and subjective wellbeing in Italy. We find that life satisfaction is significantly lower in a subset of the South regions and in smaller municipalities, finding evidence of strong heterogeneity across Southern regions. These findings match those reporting significantly lower trust in institutions in the Italian Mezzogiorno, coupled with unexpectedly high interpersonal trust and the number of people to rely on. When we however identify generative and participative types we find that the latter are significantly happier than their counterparts, whatever the areas in which they live, and find no divide among generative and participative individuals of different geographical areas. Overall, our findings show that life satisfaction is not a destiny tied to birthplace but an achievable outcome related to generative and participative choices.

Keywords: geographical disparities, subjective wellbeing, interpersonal trust, generativity, participation.

JEL numbers: R1, R11, R13.

1. Introduction

Geographic inequalities historically represent a key issue in Italy more than in any other European country. To the classic problem of the disparities between the Center-North and the South, we must now add that of the inequalities between large urban centers and internal areas. The latter inequality is made more dramatic by the demographic crisis that jeopardizes the very survival of small municipalities, progressively impoverished in terms of access to services, far from large urban agglomerations and major transportation routes.

This paper aims to provide and interpret new empirical evidence on this topic by analyzing the effect of living in the South of Italy and small municipalities on trust in institutions, educational opportunities, the quality of interpersonal relationships, and life satisfaction. To do so we use data of a survey on a representative sample of 2,000 Italians interviewed in February-March 2024.

Our research hypotheses, formulated in light of the relevant literature, assume that residence in the South of Italy and small municipalities should negatively affect all the aforementioned variables for

the reasons explained in the section, that follows, based on the analysis of the literature and previous empirical findings (lower trust in institutions, interpersonal trust, job opportunities).

The main results of the study only partially confirm these hypotheses.

The Southern regions exhibit significantly lower levels of trust in institutions (political parties, the European Parliament, police, the judiciary) and politics in general, lower expected opportunities from education pathways, and lower life satisfaction compared to the North-West, but not compared to the other two macro-areas (North-East and Center). The difference is an average between a wider effect in Calabria and Campania and a milder effect in the other Southern regions, where the negative effect almost disappears. The results on interpersonal trust and the number of people to rely on outside the family circle, however, show no significant differences between the South and other country regions, with significantly higher values for the number of people to rely on in the Southern regions. This last result, based on 2024 data, contrasts with theoretical literature and past empirical evidence about the lower relational capital and lower interpersonal trust in the South compared to the rest of the country.

In the last part of our analysis, the characteristic traits of the generative and the participatory/cooperative attitudes of the respondents are outlined. The use of these variables indicates that both traits have a positive and significant impact on life satisfaction. In particular, individuals with generative and participatory attitudes in the South have levels of satisfaction not different from those of generative and participatory individuals in other regions of the country, and significantly higher than those of non-generative and non-participatory individuals throughout all Italian regions.

The main implication of our findings is that happiness is not a destiny tied to one's place of birth but is an outcome where equal opportunities, meaning independence from the starting point, prevail. Those who choose to be generative, participative and cooperative, thereby contributing to the development of their geographical areas are also satisfied with their life.

2. Literature and research hypotheses

The economic literature has long debated the role of social capital as a driver of geographical inequalities in our country. Seminal works in this field are those of Banfield (1958) and Putnam et al. (1993). Banfield (1958) outlines the characteristic of "amoral familism" in the South, which refers to a high quality of relationships within the household that crowds out relationships with third parties outside the family circle, resulting in lower levels of trust and interpersonal social capital compared to the rest of the country.

Putnam et al. (1993) and, more recently, Inglehart et al. (2020) again highlight the social capital gap between the South and the rest of the country, identifying this as one of the main reasons for the structural regional divide in Italy. Guiso et al. (2016) find that parents teach their children that it is better not to trust others twice as much in the South compared to the North, identifying intergenerational transmission as a chain perpetuating the social capital disparities. Bigoni et al.'s (2016) experimental findings from trust investment games indicate significantly lower levels of trust from the first player, the trustor, in the South compared to the North. The presence and long-term persistence of social capital disparities between the North and South are confirmed by many other studies (Accetturo & de Blasio, 2014; Di Liberto & Sideri, 2015; Guiso et al., 2016). Guiso, Sapienza,

and Zingales (2016) trace the social capital gaps back to significantly lower exposure of the South to the tradition of municipal independence (and thus self-determination traditions) in the past centuries.

The above-described literature suggests that, due to historical and current factors, social capital in the South is expected to be lower than in the rest of Italy (Banfield, 1958; Putnam et al. 1993; Guiso et al., 2016). Similarly, the persistence of the gap in economic indicators with the rest of the country, and the higher incidence of corruption and the impact of organized crime, lead to the belief that trust in politics and institutions (linking social capital) is also significantly lower. One of the factors determining the gap in the South that can be directly tested with our variables is the perception of equal opportunities in the education sector. On this point as well, the gaps in objective indicators suggest a significant difference with the rest of the country. Together, these considerations suggest a significant difference between the South and the rest of the country in terms of life satisfaction.

Based on these considerations, we formulate the following research hypotheses:

Ho1a: Residents in the South have lower levels of life satisfaction than residents living in the rest of the country.

Ho2a: Residents in the South have significantly lower trust in institutions than those living in the rest of the country.

Ho3a: Residents in the South believe in equal opportunities in the education sector less than residents living in the rest of the country.

Ho4a: Residents in the South have significantly lower levels of social capital (interpersonal trust, people to rely on outside relatives and family) than those living in the rest of the country.

The mainstream economic literature on disparities among inner areas, small towns, and large centers is mainly developed in the economic geography and migration literature. The latter addresses this phenomenon with a policy-oriented approach that tends not to focus on improving the quality of life in less advantaged areas. Indeed, there is a true opposition between the "people-based" and the "place-based" vision, where the former prevails, leading to the formulation of "space-blind" economic policies, which do not deem relevant the needs of geographical areas (Winnick, 1996). The idea is that, rather than spending resources to bridge territorial gaps, it is more efficient to allow people to "vote with their feet" by moving from one area to another, to benefit from differentials in "expected life satisfaction," moving towards better opportunities for education, employment, and income.

It is therefore evident along this line how migrations further weaken inner areas and small towns, although the effect of "assortativity" tends to reduce differences in life satisfaction. This is because it is the less satisfied individuals in small towns who tend to emigrate, leaving behind those who enjoy relatively more the positive characteristics associated with living in these areas. Such a radical view as that of "space-blind" policies is partially mitigated by other authors like Glaeser and Gottlieb (2008), who highlight two reasons for interventions in favor of inner areas. The first is based on the theme of combating inequalities, and the second is that there are opportunities for agglomeration and potential economies of scale that are not exploited even in inner areas.

In more recent times, new arguments in this direction, in light of the climate crisis and ecological transition, have been developed regarding the protection of the local environment from hydrogeological instability, which makes the safeguarding of inner areas a highly relevant ecosystem service. Furthermore, the digital revolution and the outburst of remote work during and after the COVID-19 pandemic today provide new opportunities to these areas, giving new instruments to

reconcile beauty, landscape quality, and job opportunities for employees of companies headquartered in main metropolitan areas who perform part of their activities remotely (Mariotti et al. 2023).

The above-described literature on geographical divides between large metropolitan agglomerations and small municipalities highlights how residents in small towns suffer from a lack of services and opportunities proportionally to transportation distance. This means they need more time to reach desired destinations or access essential services compared to those living in large centers, suggesting that residing in small towns significantly reduces life satisfaction. Similarly, these factors, combined with the demographic crisis (which has led in many small towns to the formation of multi-grade elementary school classes, if not to the closure of schools), provide fewer educational opportunities and therefore suggest that residents in small towns are significantly less likely to express confidence in equal opportunities in education. It is also hypothesized that the observed service deficiencies contribute to reduced trust in institutions.

Ho1b: Residents in smaller municipalities have lower levels of life satisfaction than residents in the rest of the country.

Ho2b: Residents in smaller municipalities have significantly less trust in institutions.

Ho3b: Residents in smaller municipalities believe in equal opportunities in the education sector less than residents in the rest of the country.

Our final research hypothesis relates to the role of generativity and civic participation in offsetting regional wellbeing inequalities. By generativity, we mean the expected impact of one's action in terms of social and environmental value produced. The concept of generativity was introduced by Erikson (1968) in social psychology, by Magatti et al. (2019) in sociology, and first discussed in economics by Aubin (1992, 1998). The effect of generativity on life satisfaction is analyzed among others by Shahen et al. (2019) and Jia et al. (2015 and 2016), while the connection between generativity and environmental sustainability (impact on future generations) is analyzed by Matsuba et al. (2012) and Alisat et al. (2014). Consistent with it, we define as generative someone whose satisfaction increases with the social and environmental impact of a personal action. In the economic literature, generative individuals are defined as having significantly different characteristics from the traditionally considered altruists and individuals with warm-glow preferences (Becchetti & Conzo, 2021). The generative individuals differ from the traditional altruists who are happy for the increase in others' well-being regardless of whether the effect was achieved by their action, and from the individuals with warm-glow preferences (Andreoni 1989, 1990) who are happy for what they give regardless of the effects of the action itself (which could even be negative or counterproductive). As shown by Becchetti & Conzo (2021) generativity has a strong positive effect on life satisfaction. Within this framework, civic participation is a form of generativity based on experiences that are meant to create social and political impact on the local community.

Given these theoretical considerations based on the literature, we argue that civicness and generativity have a significant effect on subjective wellbeing that can (partially or fully) overcome the geographical effect of residence on life satisfaction

Ho5: Civicness and generativity significantly affect life satisfaction and (partially or fully) overcome regional disparities in subjective wellbeing

3. Empirical findings

The section presents the empirical findings of a CATI (Computer Assisted Telephone Interview) survey conducted on approximately 2000 Italians from a representative sample stratified by gender, age, geographic area, employment status, and size of the municipality of residence. Variable legend is provided in Table 1, while descriptive statistics of the sample are in Table 2.

Subsection 3.1 will present the descriptive and econometric results on the impact of geographic area and size of the municipality of residence on life satisfaction. In Subsection 3.2, the results related to the impact of the same variables on trust in institutions and interpersonal relationships will be presented as empirical tests of our research hypotheses.

3.1 Geographical inequality on life satisfaction: the gap of Italian South and small municipalities

Our dependent variable, life satisfaction, has the standard right-skewed distribution with 41% of respondents rating their life satisfaction at 6 or below. The modal value (8) is selected by 28.89% of respondents, while only 0.75% of the sample indicates the highest level of happiness (10) (Figure 1).

Life satisfaction is highly heterogeneous across different areas of the country. The mean life satisfaction in the North-West is 6.78, which is significantly different (with a 95% confidence interval) from the South, where it is 6.38. This difference accounts for a quarter of the standard deviation of the variable. The average life satisfaction score in the South is lower than that in the Center and the North-East, although in these cases, the difference is not significant at the 95% level (Figure 2).

Considering the marked heterogeneity within the Southern regions based on various territorial indicators (employment, quality of services, education, income), we separate the two regions with the least favorable indicators in terms of unemployment, Calabria and Campania, from the rest. The life satisfaction value for these two regions (5.8) is significantly lower than that of all four remaining macro-areas (North-West, North-East, Center, and South excluding Calabria and Campania). The surprising result is that, in this case, the remaining Southern regions (excluding Calabria and Campania) register a mean value of 6.55, which is not significantly different from that of all the other macro-areas and slightly higher on average than that of the central regions.

The size of the municipality is, at least in our preliminary descriptive analysis, another variable that significantly discriminates in terms of life satisfaction. The average life satisfaction is highest for those living in regional capitals (6.83) and is significantly higher than that of those living in municipalities that are neither regional nor provincial capitals but have more than 5000 inhabitants (6.38) and those with fewer than 5000 inhabitants (6.35).

3.2 Econometric findings

Descriptive findings commented above may depend on a series of concurring factors that impact life satisfaction and are also related to the macro-area and the size of the municipality of residence. For this reason, we perform a multivariate analysis with a specification including standard controls in life satisfaction estimates.

More specifically, we estimate the following specification:

$$\begin{aligned}
 Life_Sat_i = & \alpha_0 + \sum_b \beta_b D_MacroArea_{b,i} + \sum_c \gamma_c D_MunicipalitySize_{c,i} + \alpha_1 Female_i + \\
 & \alpha_2 NChildren_i + \alpha_3 D_Relig_i + \sum_d \delta_d D_AgeClass_d + \sum_f \eta_f D_IncomeDecile_{f,i} + \\
 & \sum_g \theta_g D_EducationLevel_{g,i} + \\
 & \sum_h \lambda_h D_EmploymentStatus_{h,i} + \sum_l \mu_l D_HealthStatus_{l,i} + \sum_m \chi_m D_MaritalStatus_{m,i} + \alpha_4 PPP_i + \\
 & \alpha_5 Radiation_i + u_i
 \end{aligned}$$

(1)

where the dependent variable (*Life_Sat*) is the standard (0-10) cognitive wellbeing measure of declared life satisfaction, and the regressors of primary interest are the dummies identifying the macro-areas (North-West, North-East, Center and South) and those related to the size of the municipalities (regional capital, provincial capital, medium municipality, small municipality). Among control variables, we include dummies for female gender, number of children, religious practice, age classes, income deciles, employment status, education level, self-reported health status, and marital status. As a proxy for differences in purchasing power (the *PPP* variable), we use an indicator built with the values of the ISTAT poverty threshold,¹ recently redefined based on three parameters: i) region; ii) municipality size (metropolitan area, large municipality, small municipality (up to 50,000 inhabitants)); iii) age group (18-29, 30-59, 60-74, 75 and over). The value is calculated as the income necessary to purchase the minimum basket of goods and services deemed essential in the place where one lives. It is interesting to note that the threshold indicates a more than double difference in the cost of living for a young (18-29 age class) living in a metropolitan area in Lombardy (poverty threshold of 1175 euros) compared to an over-75 person in a small municipality in Campania (poverty threshold of 554 euros). As a proxy for climate, we use the annual average of provincial solar irradiation² (Direct Normal Solar Radiation calculated by ENEA in kWh/m²).³ The multicollinearity analysis indicates non-problematic levels of correlation among the regressors (the territorial area and municipality dummies have a Variance Inflation Factor below 3, well below the concern threshold of 10). The discrete and qualitative nature of the dependent variable suggests estimating the model using an ordered logit. However, the literature has shown on several occasions that using ordinary least squares (OLS), which assumes the continuous nature of the variable, does not change the substance of the results (see among others Clark et al. 2008 and 2013), as is also the case in our analysis (OLS estimates are omitted for reasons of space and available upon request).

The descriptive analysis of the control variables (Table 2) shows that the sample is balanced by gender (49% men), with an average age of 50.7 years. Around 39% of respondents are employed, 27% retired and 4% unemployed. As for the highest education level, the majority holds a secondary school degree (around 52%) and only 10% a University degree. The average age is 51. A large majority of the sample does not respond to the income question (around 45%). We believe that information from

¹ <https://www.istat.it/it/dati-analisi-e-prodotti/calcolatori/soglia-di-povert%C3%A0>.

² Direct solar radiation refers to the sunlight that reaches the Earth's surface without being scattered or absorbed by the atmosphere. It is primarily a measure of sunlight intensity. It is strongly correlated with latitude and in Italy is larger as far as we move South.

³ <http://www.solaritaly.enea.it/CalcComune/Calcola.php>.

these respondents is valuable and should not be missed. We therefore include them in the sample with an ad hoc income dummy.

Results from econometric estimates do not reject research hypotheses H_{01a} and H_{01b} by showing that the impacts of macro-area and the size of the municipality of residence on life satisfaction remain significant after controlling for all other relevant concurring factors included in the estimate (Table 3, columns 1 and 2). Among them, self-reported health, education level, the number of children, and religious practice are positive and significant.

In terms of magnitude, our findings imply that living in the South reduces the probability of declaring a life satisfaction level of 8 (the highest frequency high life satisfaction value) by approximately 4.8%, while living in a municipality with fewer than 5000 inhabitants reduces it by 6.5%. Using a taxonomy of the five macro-areas, which divides the Southern regions into two groups, we observe that the negative effect is more pronounced for residents of Calabria and Campania. Specifically, the probability of declaring a life satisfaction level of 8 is 11% lower for those living in these two regions compared to the benchmark of those living in the North-West.

The presence of limited values declared at the extremes suggests calculating the effect using the measure of "very happy life" considered in the ISTAT's BES (happiness from 8 to 10). The estimated specification is thus modified by replacing the dependent variable with a dummy variable that takes the value of one if the declared life satisfaction is greater than 7 and zero otherwise. We estimate the model with a logit specification.

Using this new dependent variable, the effects of macro-area and the size of the municipality of residence are confirmed (Table 3, columns 3 and 4). Additionally, among the controls, besides confirming all previously relevant variables, the negative effect of being in the lower income classes emerges more prominently. In terms of magnitude, living in the South reduces the probability of declaring oneself very happy by 11.4%, while residing in a municipality with fewer than 5000 inhabitants reduces it by 6.9% (although this effect is now less significant). Using the taxonomy of the five macro-areas, which divides the southern regions into two groups, we observe that the negative effect is more pronounced for those residing in Calabria and Campania. Specifically, the probability of declaring oneself very happy is 17.4% lower for those living in these two regions compared to those living in the North-West omitted benchmark.

3.3 Linking social capital: the regional gap on trust on institutions

One of the factors that can contribute to explaining the differences in life satisfaction between macro-areas and municipalities of various sizes is the quality of administration (Charron et al. 2014). Instead of using objective data, we continue to use perception variables such as the measure of declared trust in politics to test our two related research hypotheses (H_{02a} and H_{02b}).

The dependent variable (trust in politics) is measured on a scale from 0 to 8. The distribution of the variable is left skewed since about 66 percent of respondents declare a level of trust no higher than 4, and 85 percent no higher than 5. Since the maximum level of trust (8) is declared by only one of the 2000 respondents, the high values relevant to our analysis are 6 and 7.

From a descriptive standpoint, the difference between the North-West and the South continues to be positive and significant (3.85 vs. 3.3), with non overlapping 95% confidence intervals between the two variable means. The data for the South can be broken down into an average of 3 for residents of Calabria and Campania and an average of 3.4 for those living in the other Southern regions. However, in this case, the remaining Southern regions still register a significantly lower level of trust than residents in the North-West (and the difference between the two Southern areas is not statistically significant due to high variability in the data from Calabria and Campania). The difference corresponds to about a quarter of the standard deviation of the variable. The average declared trust in politics among residents in regional capitals and municipalities with fewer than 5000 inhabitants is very similar to the difference between the North-West and the South (about 3.93 vs. 3.3).

As in the case of life satisfaction, multivariate econometric analysis is necessary to verify whether the significant effect of residence in the South and municipality size persists even after controlling for sociodemographic variables that impact the dependent variable. The model specification uses the same types of regressors as in (1) but now has trust in politics as the dependent variable.

Econometric findings confirm the significance of the South and small municipalities with a negative sign. Residence in the South is associated with a 3.6 percent lower probability of declaring a high level of trust (equal to 6) in the political class (Table 4, column 1). Breaking down the South into the subgroup of Campania and Calabria versus other regions confirms that in the first case, the negative effect is stronger, although in this case, the difference between the "two Souths" (Calabria and Campania, on the one side, the other regions on the other side) is not significant.

The municipality size effect on trust in politics is non-linear and different from that on happiness. The most negative effect is highest for municipalities that are not provincial capitals with more than 5000 inhabitants (with a 3.9 percent lower probability of declaring a high level of trust equal to 6), followed by residents in municipalities with fewer than 5000 inhabitants (2.5 percent less). One possible interpretation is that in very small municipalities, direct knowledge of the mayor allows for an appreciation of their efforts and an understanding of the limits of their possibilities.

Given the characteristics of the dependent variable, to achieve clearer and more interpretable results, we construct, similar to the approach taken for the life satisfaction survey, a dichotomous variable for high political trust, with a value of one if the respondent declares a value greater than 4 and zero otherwise. The estimation indicates, in this case, that residence in the South reduces the probability of declaring trust in politics by 10 percent compared to the omitted benchmark of residents in the North-West. The effect of residence in non-provincial capital municipalities with more than 5000 inhabitants is -13 percent, while that of residence in municipalities with fewer than 5000 inhabitants is -9 percent (results are omitted for reasons of space and available upon request).

Another particularly relevant variable of institutional trust is trust in police and the judiciary. This variable allows us to indirectly assess the impact of crime, which often eludes objective indicators related to reported crimes and capture operations since in highly degraded and criminally controlled areas, paradoxically, there might be fewer reported crimes and fewer capture operations. In this case, both descriptive and econometric data identify a significant difference between the South and the North-West, which is explained by a marked difference between the two regions of the South (Calabria and Campania), while the rest of the South (whether four or six regions) presents dynamics not significantly different from those of the North.

More specifically, the probability of declaring a high level of trust in police is 10 percent lower in the two regions of the South compared to the North-West (Table 4 column 2). An interesting fact that functions as a sort of falsification test is that, as expected, the large/small municipality distinction

does not affect this variable. Findings on trust on the judiciaries go in the same direction. More specifically, the probability of declaring a lower level of trust in the judiciary is **5 percent lower** in the South (Table 4 column 3).

We extend the investigation to trust in political parties and the European Parliament using the remaining institutional trust variables recorded in the sample. Descriptive and econometric findings confirm a significant and negative effect of residing in the South, more pronounced if in Calabria and Campania. More specifically, the average value of trust in the European Parliament is 4.3 in the South and 4.85 in the North-West (Table 4 column 4). From an econometric perspective, after adjusting for the effect of all other measured concurring factors, this amounts to an 18 percent lower probability of declaring a high level of trust in the South, 22 percent lower if considering only the two regions of Calabria and Campania. As for trust in political parties, the average level in the South is 3.7, while 4.25 in the North-West. These trust gaps translate into a 15 percent lower probability of declaring a high level of trust in political parties in the econometric analysis (Table 4 column 5).

3.4 South, small municipalities and equal opportunities in education

Another reason that could correlate with the difference in life satisfaction between the South and small municipalities is the lack of equal opportunities (our H_{03a} and H_{03b} hypotheses). In our survey, the question to capture this phenomenon is related to equal opportunities in education pathways, where respondents are asked, "*In your opinion, does everyone in the country have a good chance of achieving the level of education they seek? Assign a value from 0 (no one has a good chance) to 10 (everyone has a good chance).*"

Inspection of the distribution of this variable indicates that 63.8 percent of respondents do not assign a value higher than 5 to this question. Starting with descriptive data in our analysis, we observe a significant difference between the average values in the South (4.9) and those in the North-West (5.25). The difference between regional capitals and municipalities with fewer than 5000 inhabitants is similar (5.3 vs. 4.9). This time, the division of the South into two areas does not reveal significant differences (Table 4 column 6).

To better understand the effect, we recode the variable into a dichotomous one measuring high equal opportunities in education (value one if equal opportunities are greater than 5 and zero otherwise). The estimation using this modified dependent variable finds a negative 5 percent effect for residents in the South and a negative 10 percent effect for residents in municipalities with fewer than 5000 inhabitants thereby not rejecting our two related research hypotheses.

3.5 Some lights for the Italian Mezzogiorno (interpersonal trust)

Some interesting data from the survey concern the situation of interpersonal relationships related to our research hypotheses H_{04a} and H_{04b} . Focusing on the presence or absence of people to rely on ("*Excluding relatives (your own or your spouse/partner's), are there people who live near you and on whom you can rely in case of need?*"), Southern regions appear to be in better conditions than the Northern regions. More exactly, descriptive data indicate that the share of respondents who have

someone (excluding relatives) they can rely on is 11 percent higher in the South compared to the Northwest (72 percent versus 61 percent). The econometric estimate, which controls for the effect of all observed concurring variables, indicates that the difference remains significant, though reduced to 6 percent (Table 4 column 6).

Another interesting finding in the relational domain is the non-significance of the difference in interpersonal trust between residents in the South and other areas of the country. As is well known, the empirical literature often shows a significant difference, disadvantaging the South. Guiso et al. (2016) find that parents teach their children not to trust others at double the rate in the South compared to the North, and Bigoni et al. (2016) experimental results from trust games (trust investment game) show significantly lower trust levels from the first player (the trustor) in the South compared to the North.

Comparing these results with those obtained regarding trust in politics, we can emphasize the persistence of a significant negative difference in the South compared to the North-West in terms of linking social capital (trust in institutions and political parties), but an equal position in terms of the social capital component measured by interpersonal trust, and an even better position in terms of having people to rely on. The same occurs for residents in small municipalities who have a positive and significant effect on the last dependent variable. This evidence thereby rejects the research hypotheses *H04a* and *H04b*.

In conclusion, looking at the various dimensions of social capital, we find a result where the South is even better than the rest of the country regarding the possibility of relying on people outside the family, and has non-significant differences in terms of interpersonal trust and civic engagement (contrary to past literature results), but lower levels of linking social capital and, in particular, trust in politics, political parties, the European Parliament, police, and the judiciary.

3.5 The role of generativity and participation

In this section we test our research hypothesis on the role of generativity and participation and on the capacity of these two variables to offset the effect of geography on life satisfaction (*H05*).

The civic and social participation variable is constructed as the (0-1) normalized simple average of a series of dummy variables that have a value of one if, in the last year, the respondent has engaged in the given participatory behavior and zero otherwise. The participatory behaviors considered include having contacted a politician or public official, made donations or participated in activities of a party or pressure group, displayed the symbol of an association or social or political campaign, signed a petition, participated in a public demonstration, boycotted products, posted or shared something political online, on blogs, via email, or on social media, and volunteered in a non-profit organization.

The generativity variable is calculated in two different ways. The first generativity variable follows the Becchetti and Conzo (2021) indicator and is the simple average of responses to questions about creativity and care for others. The second (composite) generativity variable is calculated as the average of 10 indicators that combine socially and environmentally responsible economic choices, creativity, cooperative approach, risk propensity, and investment in relationships.

Using the above described definitions of generative and participative types we inspect the difference between life satisfaction for them and their non generative/non participative counterparts in each

macroarea. The picture is impressive since what matters now is the difference across types and not geographical residence. In other terms generativity and participation always matter for life satisfaction, while there is no difference in life satisfaction among different macroareas for the same (generative/non generative, participative/non participative) types (Figure 3). Descriptive evidence is confirmed when we estimate the model in (1) by adding the generative and participative type dummies (Table 5). The dependent variable is the 0-10 life satisfaction measure in columns 1 and 2 of the table, while the 0/1 “very happy” variable is in columns 3 and 4. Both generativity simple, generativity composite and participation variables are strongly significant with the positive sign in columns 3 and 4. In terms of magnitude being a generative type raises by around 68 percent the probability of being very happy (level of declared life satisfaction between 8 and 10) with respect to sample average probability, while being a cooperative type by around 72 percent (column 4).

Descriptive findings in Figure 3 have shown that generativity and participative characteristics can overcome geographical effects on subjective wellbeing. To test econometrically our hypothesis H_03 in this respect we perform an estimate where we keep in the sample only individuals in the North with the lower third of the aggregate generative/participative variable and individuals living in the South with the upper third of the same variable. Regression findings show that individuals living in the South (and in the top third of the generative/participative variable) are significantly happier than individuals living in the North and in the bottom third of the same generative/participative variable (coefficient 679. t-stat 2.33). The hypothesis that generative and participative types can overcome the impact of geographical area of residence is therefore not rejected by empirical evidence

3.6 Testing causality for the generativity/participation effect

Any observed significant correlation in multivariate econometrics can be interpreted in three ways. The first is direct causality from the significant regressor to the dependent variable. The second is indirect causality (from the dependent variable to the regressor). The third is spurious correlation determined by two separate and independent unobserved causality links between a third omitted variable and the significant regressor (on the one side) and the dependent variable (on the other side). As well-known policy implications from our findings about the importance of acting on the significant regressor to affect the dependent variable outcome can apply only if direct causality is expressly proven (or at least assumed as plausible). About our geographical variables of interest (residence in macroregions and municipality size) the assumption of exogeneity is plausible if residence is exogenous that is if we assume that observed individuals have not voluntarily moved to a new residence.

For our two generativity and participation variables we test causality with an IV approach. In order to simplify the analysis we create a single generativity/participation index as an average of the normalized values of the generative composite and participative indexes and instrument it with the sample macroregion/education level average of the same variable. Our assumption is that the instrument has the two required properties of relevance (it significantly affects the value of the generativity/participation index for the individual) and validity (it is not directly correlated with the second stage dependent variable of life satisfaction).

Our first stage IV estimates confirm that our instrument is relevant (Table 6, column 2), while second stage estimates show that the instrumented variable maintains its significance (Table 6, column 1) with coefficient magnitudes extremely close to those of the corresponding non IV estimate (Table 6, column 3). Instrument validity is indirectly tested with a falsification exercise where we limit the estimate to individuals with very low levels of the generativity/participation index (below .2) and we replace the instrumented variable with the instrument in the non IV estimate. Findings in the falsification exercise show that the instrument is not significant, thereby not rejecting the hypothesis that the instrument effect on life satisfaction is only through the instrumented variable (Table 6, column 4).

4. Discussion, quantitative benchmarks and policy implications

The results presented in our empirical analysis suggest that only some of the research hypotheses (and only partially) are confirmed. More specifically, the results on interpersonal social capital (Table 4 column 7) surprisingly go in the opposite direction to what was predicted and measured in previous studies (people outside the family circle on whom one can rely) or do not confirm the formulated and consolidated hypothesis in the literature of lower interpersonal trust in the South (see section 2). The hypotheses on trust in institutions, equal opportunities in education, and life satisfaction are confirmed only in comparison with the North-West and only for two regions of the South (Calabria and Campania). A possible interpretation is that some compensating factors, such as climate (hours and quality of light) and the quality and rhythm of relational life, offset in the South the negative effect of fewer job and education opportunities and the lower quality of services and public administration. The balance works up to a certain point and fails when the effect of the difference of negative factors among geographical areas is particularly strong.

Our findings inevitably present limitations (if only because they are linked to specific time-space contingencies) as they occur in any similar empirical analysis and are useful as they stimulate new research hypotheses and further investigations.

As is well known, subjective variables have both a fundamental advantage and a disadvantage compared to objective ones. The advantage is that they are comprehensive and exhaustive personal evaluations that can capture objective dimensions that are either unmeasured or unmeasurable. The disadvantage is that subjective data are significantly influenced by expectations. Thus, individuals with very high expectations may report low satisfaction levels (despite good levels of objective variables), while, conversely, as in the famous example of the "happy slave" cited by Amartya Sen, individuals with very low expectations may report high satisfaction levels despite unsatisfactory levels of objective variables (Sen, 1987, 1989).

Despite this potential disadvantage, interest in subjective measures is growing for a simple reason. Although influenced (or "distorted") by the dynamics of expectations, levels of subjective satisfaction significantly affect objective dimensions (low levels of life satisfaction have consequences on health and even mortality, low levels of job satisfaction predict low productivity or high turnover, and low levels of consumer satisfaction predict reductions in future consumption) (Kaiser & Oswald, 2022). Therefore, it is no coincidence that surveys based on self-reported satisfaction variables such as organizational climate, consumer and worker satisfaction are considered fundamental.

Given that, as mentioned above estimates on subjective variables are always subject to the disturbances of the expectation variable, it is useful to compare the presented evidence with the dynamics of corresponding objective indicators for the different territorial areas.

In this case, geographical objective indicators are very consistent with our subjective results and seem to exclude that the latter are due only to excessive expectations (which should be higher in the South to justify the obtained results in the absence of significant differences in objective indicators). If we look at the 2023 unemployment rates, we find unemployment rates in the North-West, North-East, and Center (5.1, 4.2, and 6.1 percent respectively) significantly lower than in the South excluding Calabria and Campania (10.1 percent), and more so than the average of Calabria and Campania (16.7 percent). The distances are confirmed if we consider only female unemployment, with Calabria and Campania at 19.8 percent on average against the North-West at 5.9 percent. Equally large territorial gaps can be found in the share of young people not in education, employment, or training (NEET). The share of NEET (young people not working or studying) is indeed around 15 percent in the North-West against about 26 percent in the South (which breaks down into an average of 25 percent excluding Calabria and Campania and 27 percent as the average of the two regions).

The labor market gaps correspond to equally significant ones in the school system in terms of literacy and numeracy skills, school dropout rates, and school services. We calculate the percentage of Grade 8 students in lower secondary schools who do not achieve a sufficient level (Level I + Level II out of 5 levels) of numerical competence in different macroareas. The share is around 37.6 percent in North-West (35.5 and 39.2 in North-East and Center), while around 54.7 percent in the South. When we decompose South regions we find that the share is around 58.5 percent in Calabria and Campania and 53.4 percent in the rest of the South. Data on alphabetic competencies follow the same paths even though differences are somewhat narrower (34.6 percent in the North-West against 45.4 in the South).⁴

These gaps are consistent with our results on declared study opportunities in the survey. Even the "positive" data relative to the South, regarding interpersonal relationships and people to count on, find interesting confirmation in objective variables. If we calculate the number of cooperatives per capita, we find higher values in the South than in other areas of the country (the number of cooperatives per capita in the South is about 1550 against 550 in the North-West). The objective data also indicate, as does the subjective one, an important difference in this dimension in the North-South relationship compared to the past.

The results on interpersonal trust, as mentioned, do not confirm past empirical evidence (such as those from the trust games of Bigoni et al. 2016). As is known, experimental findings like those of Bigoni et al. (2016) can isolate the effect from concurring variations and thus verify causality links, even though the problem of "external consistency" (i.e., the correspondence between results obtained in an "artificial" condition like the laboratory and behaviors in real life) remains. Furthermore, we are talking about different periods and areas. Our survey takes place about 15 years later on a representative sample including all Southern regions, while the experiments of Bigoni et al. (2016) were conducted only in Ragusa (Sicily) and Crotone (Calabria).

⁴ The source for these data is INVALSI - National Surveys on Learning Outcomes.

Another important consideration is the classification of territorial areas, which necessarily presents elements of arbitrariness. To minimize them, we used the ISTAT definition of the South, which includes Abruzzo and Molise. The alternative is to include Abruzzo and Molise in the Center and leave the remaining six regions in the South. It is interesting to verify if, in this case, the difference between Calabria and Campania and the rest of the South remains evident. Repeating the analysis with this new classification for life satisfaction indicates that it does, and the South without Calabria and Campania is not different from the rest of the country, even when Abruzzo and Molise are excluded from the South (results are omitted for reasons of space and available upon request). As well we are aware of the heterogeneity of development indicators across Campania provinces but the size of our sample does not allow to disaggregate further.

Our findings, despite all the considered limitations, can be an interesting starting point for policy reflections. The presented evidence firstly indicates that the well-known territorial gaps between different areas of the country translate (in some cases but not always) into equally significant differences in life satisfaction and subjective well-being. They as well highlight the difficulties of small municipalities in a socioeconomic system where the demographic crisis and the distance from main communication networks (such as high-speed train) can create significant opportunity gaps.

The most interesting part of our results, on our opinion, is that they indicate some ways out. First, the results on relational goods and interpersonal relationships (people to count on, interpersonal trust) show the image of a South that goes beyond the traditional vision of "amoral familism" and the poverty of social capital. If, as widely demonstrated, social capital is an essential factor for the well-being of territories, this factor represents an important starting point for the redemption of the South, even if its translation into entrepreneurial cooperation and economic generativity is conditioned by delays in physical infrastructure (railways primarily) and quality of institutions. Second, there are areas of the South that "made it" (at least from the point of view of subjective well-being gaps) and show life satisfaction results not significantly different from those of the Centre and North. A plausible interpretation linking these two facts is that, above a certain threshold of reduction of territorial gaps in terms of objective indicators, the high values of interpersonal relationships and social capital can fill the gaps in subjective well-being. A critical threshold presumably not reached by the two lagging regions, which unsurprisingly present gaps in objective indicators compared to the rest of the South.

The main policy indication for the North-South gaps is therefore to work on the growth of social capital and on the set of factors that can enable convergence beyond the critical threshold (improvement of the school system, labor market, and the quality of institutions primarily). Suggesting that this critical threshold, at least in terms of eliminating the subjective well-being gap, is not so far, presumably due to other compensating factors in favor of the South that impact this subjective well-being (interpersonal relationships themselves, climate, lifestyles, ...).

The discussion for internal areas is more complex because it seems objectively difficult to reverse the trend marked by demographic decline, which quickly translates into a loss of services and critical mass for a life rich in opportunities. Responses such as community cooperatives⁵ and digital infrastructure policies can offer support for revival by exploiting the opportunities opened by the

⁵ A community cooperative is owned and governed by members of a local geographical community. It is established to meet the community's needs by providing goods or services that are not available or affordable through traditional market channels. At end 2023 there were around 250 community cooperatives in Italy (<https://www.avvenire.it/economicivile/pagine/le-cooperative-di-comunita-antidoto-efficace-allo-spopolamento>)

remote work revolution, which allows more than in the past to reconcile efficiency, beauty, and value of residing in rural areas.

In this regard, an interesting policy indication is the one related to the new opportunities offered by remote work and the discovery, made evident during the pandemic, that current technologies allow combining remote and in-person work (through three types of relationships on which company life is now structured: face-to-face relationships in person, face-to-face relationships remotely, interactive relationships remotely) (Becchetti et al. 2022). The evidence indicates that having experienced the possibility of reconciling work and relational life by using much more the second and third types of relationships, and not equating working with going to the office, pushes many workers to reject the return to no-remote-work pre-COVID-19 working conditions (great resignation) (Becchetti et al. 2023). This revolution can become an opportunity to bridge territorial gaps and reduce the brain drain associated with them. Internal areas and regions of the South with appropriate enabling infrastructure (broadband, coworking spaces) can reduce high-skilled worker migration by offering the opportunity to workers formally employed in companies based in the North to work and stay for long periods of the week or month in the South. Thus, the phenomenon of “South workers” is born, which, in light of our data, represents a rational response to territorial gaps in the factors that impact life satisfaction in different areas of the country (Lo Russo & Mariotti, 2022; Mirabile & Militello, 2022; SVIMEZ, 2020, p.211; Mariotti et al. 2023). A South worker is a sort of “life satisfaction surfer” that can combine (at the cost of commuting) the positive factors of life in the South (climate, quality of interpersonal relationships, higher purchasing power) with those of life in the North (greater job opportunities, income, and human capital investment).

5. Conclusions

We present and discuss findings from an empirical investigation of the nexus between geographical inequalities and subjective wellbeing in Italy. Our research hypotheses postulate a negative effect of living in the South, and small municipalities compared to the rest of the sample, as well as lower social capital and interpersonal trust in the South.

Our findings confirm only some of them. We find that living in the South and residing in small municipalities, net of the effect of all other socio-demographic factors usually considered in the literature, significantly reduces the life satisfaction of respondents compared to the benchmark of the North-West (but not compared to the North-East and Center). A more in-depth analysis also reveals that there is no homogeneous South. When we separate the two regions with the most negative employment indicators (Calabria and Campania), we find that living in the remaining regions classified as the South by ISTAT does produce much weaker negative and significant (in some cases insignificant) effects compared to the rest of the sample, unlike the two considered regions where the negative impact is significant and pronounced. We also find that gaps in life satisfaction are matched by those on trust in institutions (political parties, police, the European Parliament, elected representatives) and by fewer education opportunities declared by respondents in Southern regions.

Southern regions have not only shadows but also lights. The test on social capital differences highlights non-significant differences in interpersonal trust and a higher number of respondents

declaring the presence of people outside the family they can count on in the South, thereby rejecting the hypotheses traditionally formulated in the literature.

Our results allow us to identify the strengths and weaknesses of the South. Among the weaknesses are fewer opportunities for quality education, work, and income, and lower trust in institutions reflecting relative institutional weakness. These weaknesses are partly compensated by higher purchasing power (the cost of living, parameterized on the ISTAT poverty threshold, can be up to double for a young person living in a metropolitan area in Lombardy compared to an elderly person living in a municipality with fewer than 50,000 inhabitants in Campania), a more favorable climate, and higher quality of interpersonal relationships.

In the second step of our inquiry, we identify two types of active citizenship related to the concept of generativity (creativity plus passion for improving the conditions of others) and civic and social participation. These two factors have a strongly positive and significant impact on life satisfaction, with a direct causality link not rejected by our instrumental variable estimates. Combining these data with those on territorial inequalities, we observe that generativity and social and civic participation in the South can partially compensate for the initial disadvantage.

Faced with this scenario, we believe there are two individual response strategies and one systemic response strategy. The systemic one involves working to correct the weaknesses of the South and internal areas by strengthening the quality of institutions and opportunities for education, work, and income. The individual strategies are of two types. The first is the response of the so-called “South Workers” who, like “happiness surfers”, try to exploit the potential of smart work to combine the best of both worlds (job opportunities in the North with relational and climate amenities and lower cost of living in the South). This is an individual response possible only for those with jobs where smart work is feasible. The second is that of generativity and social participation which makes life satisfactory irrespective of the area of residence. This second strategy has the advantage of contributing more significantly to the progress of the Southern regions, thus positively impacting the systemic strategy as well.

Our research offers stimuli, presents limitations, and opens directions for future research. Our work, predominantly based on subjective indicators (life satisfaction, interpersonal trust, trust in institutions), addresses in the discussion section the criticism of such indicators in the literature based on the presumed randomness of expectations. In our work, we highlight a close correspondence between subjective well-being gaps and gaps based on objective variables, also emphasizing how the measurement of subjective indicators (even when "distorted" by expectations) is of particular importance as they have significant effects on changes in objective variables. An example is precisely the link between territorial life satisfaction gaps and migration flows. Declared life satisfaction may or may not correspond to objective indicators but conditions behaviors that in turn impact the objective indicators themselves in many areas (turnover, health, mortality, and migration). From this point of view, our results predict that the pressures for migration from some regions of the South and internal areas of the country remain significant, even though the new stories of South workers tell us that migration can take new hybrid forms different from those of the past.

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Tab 1 Variables legend

Life sense	<i>Currently, how satisfied are you with your life overall? Please assign a value from 0 (not at all satisfied) to 10 (very satisfied).</i>
North-West	Piemonte, Val d'Aosta, Liguria, Lombardia
North-East	Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia, Emilia-Romagna
Center	Toscana, Umbria, Marche, Lazio
South	Abruzzo, Molise, Puglia, Campania, Basilicata, Calabria, Sicilia, Sardegna
Regional capital	0/1 dummy if the respondent residence is in a regional capital
Provincial capital	0/1 dummy if the respondent residence is in a province capital
Medium municipality	0/1 dummy if the respondent residence is in a municipality above 5000 inhabitants (neither province, nor regional capital)
Small municipality	0/1 dummy if the respondent residence is in a municipality below 5000 inhabitants
Creative	<i>Below you are provided with a brief description of a person. Please read carefully and indicate how much you identify with the person described: it is important for them to think of new ideas and be creative. They love doing things in a personal and original way. (6=Very similar to me; 5=Similar to me; 4=Somewhat similar to me; 3=Slightly similar to me; 2=Not similar to me; 1=Not at all similar to me)</i>
Care for others	<i>Below you are provided with a brief description of a person. Please read carefully and indicate how much you identify with the person described: it is very important for them to help the people around them. They enjoy working towards others' well-being. (6=Very similar to me; 5=Similar to me; 4=Somewhat similar to me; 3=Slightly similar to me; 2=Not similar to me; 1=Not at all similar to me)</i>
Generative	Average of creative and care for others
Generative composite	average of 10 indicators that combine socially and environmentally responsible economic choices, creativity, cooperative approach, risk propensity, and investment in relationships
Civicness	Sum of positive answers for the following actions done in the last year: i) contacted a politician or public official, ii) made donations or participated in activities of a party or pressure group, iii) displayed the symbol of an association or social or political campaign, iv) signed a petition, v) participated in a public demonstration, vi) boycotted products, vii) posted or shared something political online, on blogs, via email, or on social media, viii) volunteered in a non-profit organization
Trust in the European Parliament	Level of trust (0 Absolute lack of trust ... 10 complete trust)
Trust in political parties	Level of trust (0 Absolute lack of trust ... 10 complete trust)
Trust in politics	Level of trust (0 Absolute lack of trust ... 10 complete trust)
Trust in the judiciaries	Level of trust (0 Absolute lack of trust ... 10 complete trust)
Trust in police	Level of trust (0 Absolute lack of trust ... 10 complete trust)

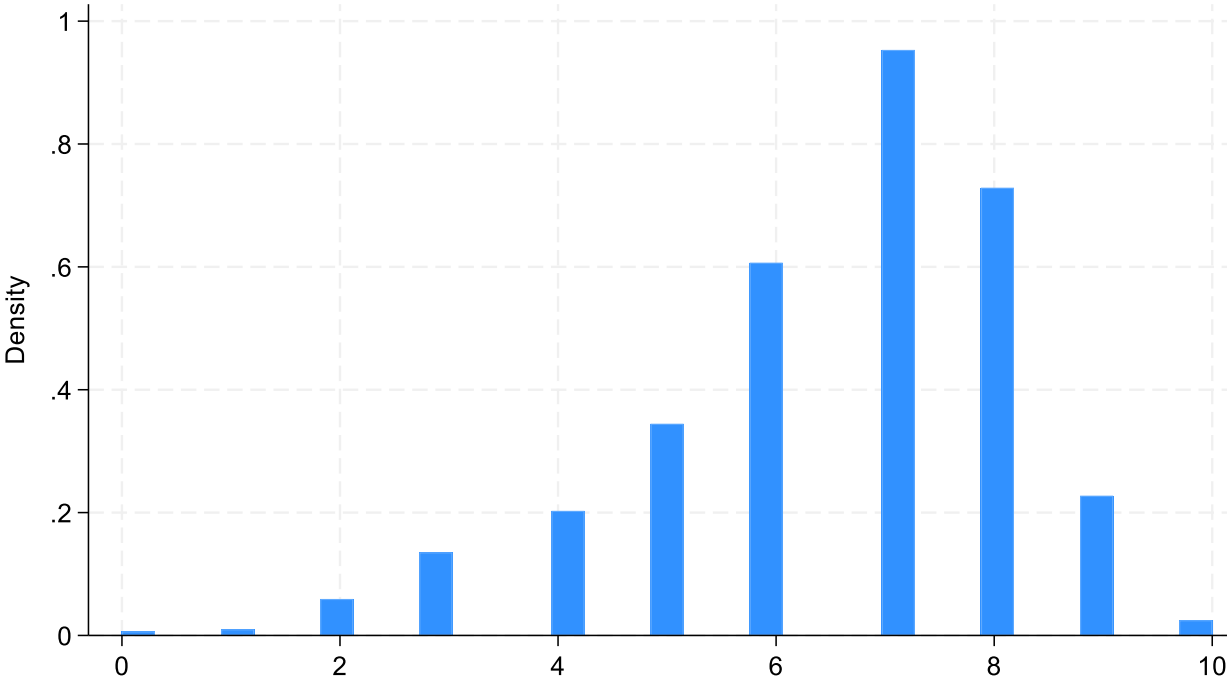
Interpersonal trust	Can most people be trusted, or should one be very cautious? Please assign a value from 0 (one should be very cautious) to 10 (most people can be trusted).
Religious	0/1 dummy for answer to the question <i>Do you currently attend religious services at least once a week (excluding special occasions such as weddings, baptisms, funerals, and similar celebrations)?</i>
Purchasing power parity	Income necessary to purchase the minimum basket of goods and services deemed essential in the place where one lives (accessible at https://www.istat.it/it/dati-analisi-e-prodotti/calcolatori/soglia-di-povert%C3%A0)
Radiation	Direct Normal Solar Radiation calculated by ENEA in kWh/m ² (accessible at http://www.solaritaly.enea.it/CalcComune/Calcola.php .)
Male	(0/1) dummy taking value one if the respondent is male
Age	Respondent's age
Children	Number of children
Education level	Highest respondent education level among the following (None, Primary school, Secondary school, University degree)
Self-Assessed-Health	Self-Assessed-Health level among the following (very good, good, discrete, bad, very bad)
Marital status	Marital status of the respondent among the following (never married/civil union, separated, divorced, widowed)
Work status	Work status of the respondent among the following (student, houseworker, retired, employed, unemployed)

Tab 2. Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Life satisfaction	2,001	6.518	1.673	0	10
Generative	2,001	3.952	0.655	1.5	6
Generative composite	2,001	0.317	0.096	0.05	0.6
Participation	2,001	0.199	0.216	0	1
Generative/participative	2,001	0.297	0.113	.075	0.75
North-West	2,001	0.200	0.400	0	1
North-East	2,001	0.200	0.400	0	1
Center	2,001	0.200	0.400	0	1
South	2,001	0.400	0.490	0	1
Campania	2,001	0.050	0.218	0	1
Calabria	2,001	0.050	0.218	0	1
Head of region	2,001	0.160	0.367	0	1
Head of province	2,001	0.304	0.460	0	1
Medium municipality	2,001	0.366	0.482	0	1
Small municipality	2,001	0.170	0.376	0	1
Male	2,001	0.490	0.500	0	1
Age	2,001	50.775	17.543	18	84
<u>Income classes</u>					
Up to a 11.700 €	2,001	0.124	0.330	0	1
Between 11.701 € e 16.000 €	2,001	0.199	0.399	0	1
Between 16.001 € e 20.100 €	2,001	0.090	0.287	0	1
Between 20.101 € e 23.900 €	2,001	0.062	0.241	0	1
Between 23.901 € e 28.000 €	2,001	0.050	0.219	0	1
Between 28.001 € e 34.000 €	2,001	0.019	0.137	0	1
Between 34.001 € e 41.300 €	2,001	0.005	0.071	0	1
Beyond 70.400	2,001	0.001	0.032	0	1
Does not know/does not answer	2,001	0.449	0.497	0	1
<u>Marital status</u>					
Never married	2,001	0.239	0.427	0	1
Married/civil union	2,001	0.672	0.469	0	1
Separated	2,001	0.030	0.171	0	1
Divorced	2,001	0.022	0.147	0	1
Widowed	2,001	0.036	0.188	0	1
<u>Work status</u>					
Student	2,001	0.151	0.358	0	1

Houseworker	2,001	0.118	0.323	0	1
Retired	2,001	0.268	0.443	0	1
Employed	2,001	0.387	0.487	0	1
Unemployed	2,001	0.076	0.265	0	1
Trust in the European Parliament	2,001	4.621	2.017	0	9
Trust in political parties	2,001	3.952	1.881	0	8
Trust in politics	2,001	3.517	1.926	0	8
Trust in the judiciaries	2,001	6.149	1.459	0	10
Trust in police	2,001	6.466	1.470	0	10
Interpersonal trust	2,001	3.422	1.951	0	8
Religious	2,001	0.506	0.500	0	1
<u>Self-Assessed Health</u>					
Very good	2,001	0.104	0.306	0	1
Good	2,001	0.522	0.500	0	1
Discrete	2,001	0.291	0.455	0	1
Bad	2,001	0.060	0.238	0	1
Very bad	2,001	0.022	0.147	0	1
Purchasing power parity index	2,001	823.492	117.371	553.74	1175.15
Radiation	2,001	1555.197	104.200	1373.6	1846
<u>Highest education degree</u>					
None	2,001	0.105	0.102	0	1
Primary school	2,001	0.365	0.482	0	1
Secondary school	2,001	0.516	0.500	0	1
University degree	2,001	0.108	0.311	0	1

Figure 1. Life satisfaction



Currently, how satisfied are you with your life overall? Please assign a value from 0 (not at all satisfied) to 10 (very satisfied).

Figure 2 Geographical inequalities in life satisfaction: macroareas and municipality size

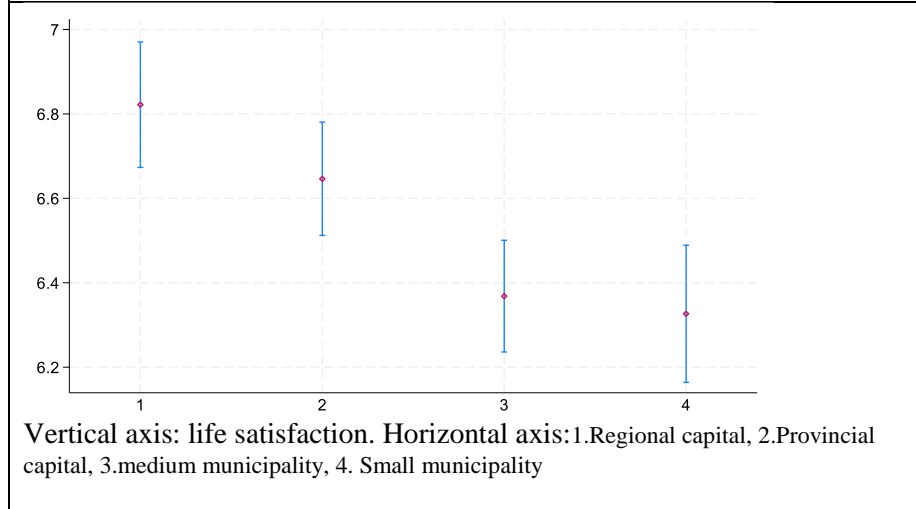
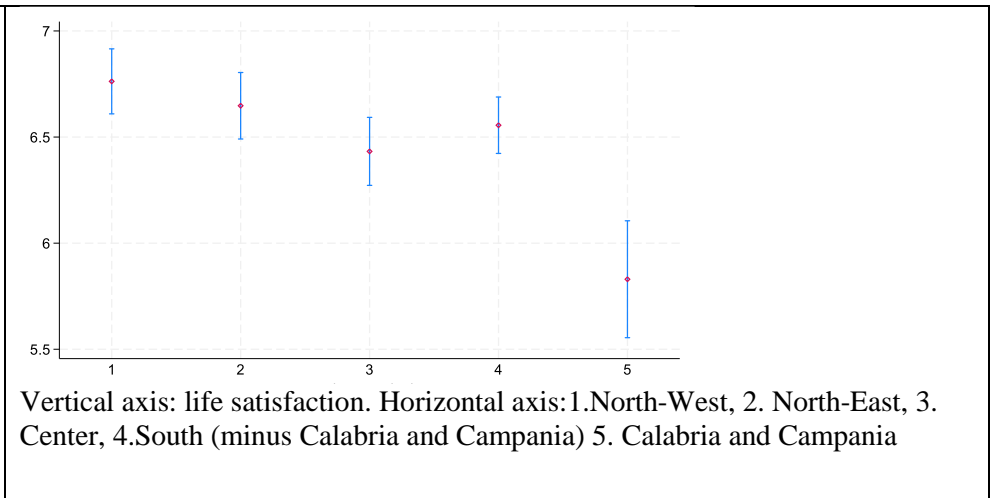
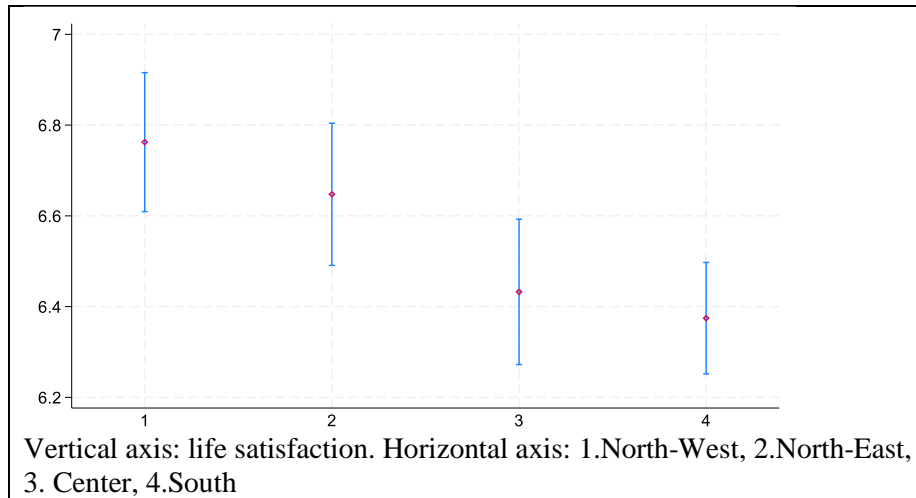


Table 3 Geographical inequalities and life satisfaction

VARIABLES	(1)	(2)	(5)	(6)
North-East	-0.0542 (0.131)		-0.166 (0.187)	
Center	-0.272** (0.127)		-0.559*** (0.193)	
South	-0.363*** (0.115)		-0.623*** (0.172)	
North-East		-0.0687 (0.132)		-0.175 (0.187)
Center		-0.297** (0.127)		-0.576*** (0.193)
South (excluding Calabria and Campania)		-0.222* (0.119)		-0.512*** (0.176)
Calabria and Campania		-0.954*** (0.188)		-1.081*** (0.265)
Head of province	-0.139 (0.125)	-0.133 (0.124)	0.0267 (0.196)	0.0276 (0.195)
Medium municipality	-0.367*** (0.120)	-0.328*** (0.120)	-0.158 (0.196)	-0.127 (0.196)
Small municipality	-0.444*** (0.135)	-0.403*** (0.135)	-0.391* (0.214)	-0.361* (0.214)
Sociodem Constant	Yes	Yes	Yes	Yes
			-1.988 (1.254)	-1.822 (1.263)
Observations	2,001	2,001	1,955	1,955
Wald χ^2	1032.89 (0.00)	1039.93(0.00)	364.92 (0.00)	365.92 (0.00)

Dependent variable: life satisfaction (columns 1-2), very happy (columns 3-4). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Table 4. Geographic inequalities, trust, equal opportunities. Interpersonal relationships

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Trust in politics	Trust in police	Trust in the judiciaries	Trust in political parties	Trust in the European Parliament	Equal opportunities in education	People to rely on except family members
North-East	-0.0255 (0.130)	-0.250* (0.135)	-0.157 (0.143)	-0.0556 (0.129)	-0.0407 (0.132)	0.0252 (0.133)	-0.0950 (0.177)
Center	-0.128 (0.128)	-0.285** (0.138)	-0.165 (0.139)	-0.173 (0.124)	-0.210* (0.127)	0.0540 (0.133)	0.0600 (0.173)

South (excluding Calabria and Campania)	-0.483*** (0.120)	-0.401*** (0.124)	-0.290** (0.131)	-0.630*** (0.116)	-0.618*** (0.121)	-0.347*** (0.120)	0.323** (0.157)
Calabria and Campania	-0.700*** (0.181)	-1.052*** (0.178)	-0.823*** (0.169)	-0.721*** (0.176)	-0.811*** (0.173)	-0.131 (0.171)	0.266 (0.243)
Head of province	-0.198 (0.127)	0.445*** (0.135)	0.387*** (0.134)	0.172 (0.125)	0.241* (0.124)	-0.167 (0.131)	0.307* (0.168)
Medium municipality	-0.525*** (0.125)	0.373*** (0.138)	0.228* (0.135)	-0.0895 (0.121)	-0.0343 (0.119)	-0.236* (0.128)	0.269 (0.166)
Small municipality	-0.266* (0.140)	0.339** (0.152)	0.226 (0.154)	-0.114 (0.136)	-0.0504 (0.135)	-0.332** (0.140)	0.444** (0.188)
Sociodem	Yes	Yes	Yes	Yes	Yes	Yes	Yes
/cut1	-3.553*** (0.616)	-5.494*** (1.050)	-5.461*** (0.980)	-3.684*** (0.637)	-4.031*** (0.650)	-1.540** (0.691)	
/cut2	-2.830*** (0.614)	-4.798*** (0.899)	-4.893*** (0.929)	-2.751*** (0.628)	-3.278*** (0.640)	-0.555 (0.687)	
/cut3	-2.020*** (0.611)	-2.893*** (0.803)	-3.129*** (0.876)	-1.878*** (0.622)	-2.502*** (0.631)	0.337 (0.687)	
/cut4	-1.206** (0.610)	-1.555* (0.794)	-1.853** (0.873)	-0.895 (0.617)	-1.782*** (0.625)	1.596** (0.689)	
/cut5	-0.0706 (0.608)	-0.644 (0.799)	-0.914 (0.878)	0.107 (0.613)	-0.680 (0.620)	3.017*** (0.692)	
/cut6	1.102* (0.608)	0.220 (0.803)	0.0105 (0.880)	1.360** (0.611)	0.504 (0.616)	4.115*** (0.695)	
/cut7	2.532*** (0.614)	1.887** (0.807)	1.770** (0.879)	2.938*** (0.614)	1.645*** (0.614)	4.805*** (0.700)	
/cut8	7.158*** (1.164)	3.392*** (0.808)	3.211*** (0.880)	6.119*** (0.706)	2.985*** (0.619)	6.385*** (0.715)	
/cut9		5.404*** (0.814)	5.431*** (0.888)		6.890*** (0.855)	7.823*** (0.776)	
/cut10		6.563*** (0.824)	6.896*** (0.922)				
Constant							-0.759 (0.937)
Observations	2,001	2,001	2,001	2,001	2,001	2,001	2,001
Wald χ^2	591.90 (0.00)	563.22 (0.00)	508.14 (0.00)	757.82 (0.00)	791.24 (0.00)	472.57 (0.00)	357.80 (0.00)

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Figure 3 The role of generativity and participation on life satisfaction across different Italian macroareas

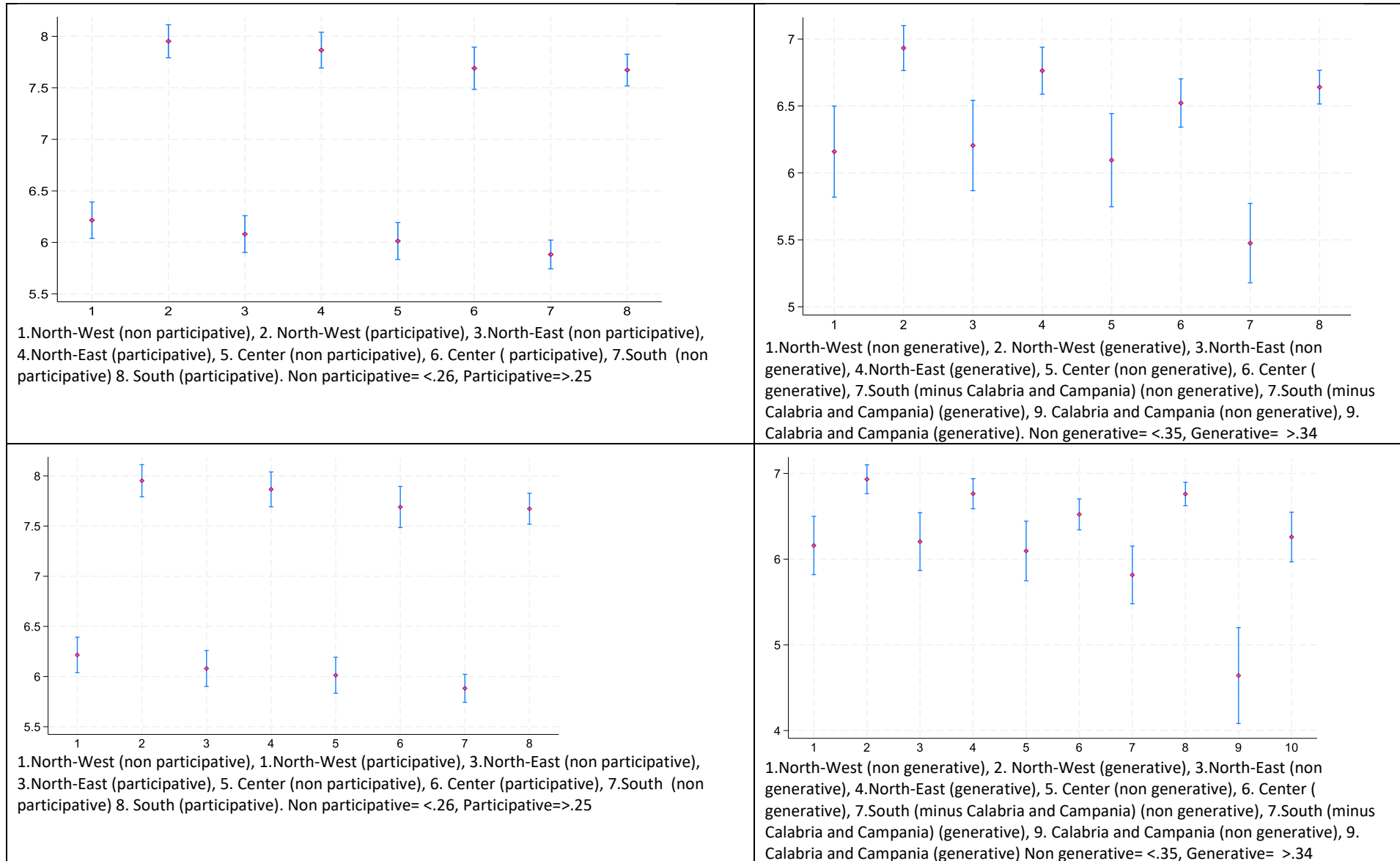


Table 5. Geographical inequalities, generativity, participation and life satisfaction

VARIABLES	(1)	(2)	(3)	(4)
North-East	-0.0244 (0.140)	-0.0844 (0.141)	-0.0268 (0.204)	-0.0896 (0.208)
Center	-0.350** (0.143)	-0.373** (0.146)	-0.840*** (0.229)	-0.849*** (0.229)
South (excluding Calabria and Campania)	-0.453** (0.229)	-0.442* (0.233)	-1.262*** (0.346)	-1.219*** (0.347)
Calabria and Campania	-1.231*** (0.296)	-1.292*** (0.298)	-1.943*** (0.427)	-1.903*** (0.426)
Head of province	-0.116 (0.137)	-0.134 (0.138)	-0.0841 (0.215)	-0.0175 (0.215)
Medium municipality	-0.278** (0.136)	-0.324** (0.138)	-0.233 (0.220)	-0.179 (0.220)
Small municipality	-0.337** (0.149)	-0.376** (0.150)	-0.408* (0.240)	-0.378 (0.243)
Generative	-0.108 (0.0799)		0.403*** (0.123)	
Participative	3.955*** (0.260)	4.175*** (0.264)	3.991*** (0.368)	4.244*** (0.374)
Generative composite		4.910*** (0.657)		3.962*** (0.919)
Sociodem	Yes	Yes	Yes	Yes
Constant			-4.944** (2.240)	-4.762** (2.285)
Observations	2,001	2,001	1,955	1,955
Wald χ^2	1240.69 (0.00)	1309.13 (0.00)	421.67 (0.00)	425.72 (0.00)

Dependent variable: life satisfaction (columns 1-2), very happy (columns 3-4). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Table 6 Instrumental variable estimates

VARIABLES	(1)	(2)	(3)	(4)
	IV estimate Second stage	IV estimate First stage	Non IV estimate	Falsification test (1)
Generative/participative	5.213*** (1.756)		5.268*** (0.314)	
Instrument		0.779***		2.846

		(0.107)		(5.222)
Constant	3.664***	0.00128	3.672***	4.368
	(0.912)	(0.0620)	(0.863)	(2.910)
Observations	2,001	2,001	2,001	270
R-squared	0.486	0.406	0.486	0.376

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix

Table 3 Macroregional inequalities and life satisfaction (full estimates findings)

VARIABLES	(1)	(2)	(3)	(4)
Female	-0.367*** (0.0931)	-0.367*** (0.0931)	-0.111 (0.136)	-0.105 (0.137)
25-34 age class	-1.747*** (0.255)	-1.764*** (0.257)	-1.468*** (0.267)	-1.515*** (0.276)
35-44 age class	-0.983*** (0.335)	-1.044*** (0.337)	-0.464 (0.410)	-0.521 (0.419)
45-54 age class	-1.274*** (0.335)	-1.328*** (0.336)	-1.116** (0.435)	-1.172*** (0.442)
55-64 age class	-1.054*** (0.362)	-1.084*** (0.365)	-0.744 (0.459)	-0.779* (0.466)
65-74 age class	-0.726* (0.419)	-0.797* (0.421)	-0.445 (0.537)	-0.525 (0.544)
75-84 age class	-0.282 (0.432)	-0.354 (0.432)	-0.461 (0.583)	-0.562 (0.593)
Children	0.186*** (0.0529)	0.192*** (0.0529)	0.378*** (0.0912)	0.374*** (0.0908)
North-East		-0.0687 (0.132)		-0.175 (0.187)
Center		-0.297** (0.127)		-0.576*** (0.193)
South (excluding Calabria and Campania)		-0.222* (0.119)		-0.512*** (0.176)
Calabria and Campania		-0.954*** (0.188)		-1.081*** (0.265)
Between 11.701 € and 16.000 €	-0.144 (0.154)	-0.219 (0.156)	-0.515** (0.200)	-0.533*** (0.201)
Between 16.001 € and 20.100 €	-0.492*** (0.183)	-0.548*** (0.184)	-0.858*** (0.247)	-0.876*** (0.249)
Between 20.101 € and 23.900 €	-0.325 (0.224)	-0.377* (0.223)	-0.697** (0.313)	-0.710** (0.311)
Between 23.901 € and 28.000 €	-0.437** (0.209)	-0.510** (0.208)	-0.865*** (0.323)	-0.886*** (0.321)
Between 28.001 € and 34.000 €	-0.313 (0.315)	-0.373 (0.315)	-0.546 (0.434)	-0.570 (0.435)
Between 34.001 € and 41.003 €	0.0819 (0.444)	0.0452 (0.449)	1.534 (1.169)	1.516 (1.176)
Beyond 70.400	2.650 (2.019)	2.452 (2.030)		
Does not know/does not answer	-0.216 (0.143)	-0.257* (0.142)	-0.204 (0.192)	-0.215 (0.193)
Primary education	0.130 (0.304)	0.135 (0.314)	-0.0267 (1.004)	-0.110 (1.011)

Secondary education	1.726*** (0.337)	1.719*** (0.346)	1.653 (1.023)	1.536 (1.030)
Tertiary education	2.707*** (0.371)	2.719*** (0.378)	2.752*** (1.047)	2.651** (1.054)
Single	-0.199 (0.299)	-0.168 (0.299)	-0.00707 (0.625)	0.00509 (0.626)
Married/civil union	0.359 (0.222)	0.373* (0.221)	0.651 (0.560)	0.662 (0.561)
Separated	-0.416 (0.327)	-0.380 (0.327)	0.0846 (0.724)	0.111 (0.725)
Divorced	-0.311 (0.373)	-0.341 (0.370)	0.609 (0.723)	0.590 (0.725)
Student	0.608** (0.257)	0.590** (0.255)	1.400*** (0.347)	1.417*** (0.350)
Houseworker	1.432*** (0.247)	1.333*** (0.244)	0.501 (0.306)	0.454 (0.305)
Retired	1.139*** (0.276)	1.075*** (0.275)	0.861** (0.378)	0.849** (0.377)
Employed	0.712*** (0.191)	0.634*** (0.189)	0.201 (0.243)	0.165 (0.241)
Head of province	-0.139 (0.125)	-0.133 (0.124)	0.0267 (0.196)	0.0276 (0.195)
Medium municipality	-0.367*** (0.120)	-0.328*** (0.120)	-0.158 (0.196)	-0.127 (0.196)
Small municipality	-0.444*** (0.135)	-0.403*** (0.135)	-0.391* (0.214)	-0.361* (0.214)
Good Self-assessed-health	-0.754*** (0.153)	-0.725*** (0.153)	-0.983*** (0.218)	-0.955*** (0.221)
Discrete Self-assessed-health	-2.075*** (0.186)	-2.045*** (0.186)	-2.150*** (0.294)	-2.127*** (0.296)
Bad Self-assessed-health	-3.602*** (0.262)	-3.601*** (0.261)	-3.485*** (0.558)	-3.468*** (0.561)
Very bad Self-assessed-health	-4.598*** (0.286)	-4.625*** (0.287)		
Religious	0.929*** (0.0945)	0.929*** (0.0938)	1.331*** (0.142)	1.333*** (0.142)
/cut1	-7.144*** (0.736)	-7.301*** (0.735)		
/cut2	-6.182*** (0.621)	-6.325*** (0.618)		
/cut3	-4.552*** (0.565)	-4.684*** (0.562)		
/cut4	-3.351*** (0.551)	-3.478*** (0.549)		
/cut5	-2.389*** (0.548)	-2.508*** (0.545)		
/cut6	-1.357** (0.550)	-1.467*** (0.548)		
/cut7	-0.118 (0.552)	-0.217 (0.549)		
/cut8	1.583***	1.496***		

	(0.552)	(0.550)		
/cut9	3.620***	3.540***		
	(0.558)	(0.555)		
/cut10	6.170***	6.090***		
	(0.614)	(0.611)		
North-East	-0.0542		-0.166	
	(0.131)		(0.187)	
3.vZONA	-0.272**		-0.559***	
	(0.127)		(0.193)	
4.vZONA	-0.363***		-0.623***	
	(0.115)		(0.172)	
Constant			-1.988	-1.822
			(1.254)	(1.263)
Observations	2,001	2,001	1,955	1,955
Wald χ^2	1032.89 (0.00)	1039.93(0.00)	364.92 (0.00)	365.92 (0.00)

Dependent variable: life satisfaction (columns 1-2), very happy (columns 3-4). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Table 4 Geographic inequalities, trust, equal opportunities. Interpersonal relationships (full estimates findings)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Trust	Trust	Trust	Trust	Trust	Equal opportunities	People to rely on except family members
	In the European Parliament	in political parties	in Politics	in the judiciaries	in police	in education	
Female	-0.376*** (0.0931)	-0.443*** (0.0936)	-0.319*** (0.0934)	0.0661 (0.0928)	-0.0626 (0.0906)	-0.0448 (0.0928)	-0.224* (0.122)
25-34 age class	-1.734*** (0.307)	-1.853*** (0.325)	-1.378*** (0.301)	-0.752*** (0.224)	-0.866*** (0.228)	0.107 (0.213)	-0.222 (0.374)
35-44 age class	-1.251*** (0.410)	-1.409*** (0.426)	-1.104*** (0.401)	-1.571*** (0.329)	-1.612*** (0.321)	1.036*** (0.312)	-0.443 (0.461)
45-54 age class	-1.349*** (0.417)	-1.347*** (0.426)	-0.833** (0.402)	-1.198*** (0.334)	-1.555*** (0.326)	1.035*** (0.313)	-0.634 (0.469)
55-64 age class	-1.057** (0.433)	-0.860* (0.442)	-0.112 (0.421)	-0.744** (0.350)	-1.314*** (0.339)	1.146*** (0.339)	-0.773 (0.496)
65-74 age class	-1.207** (0.474)	-0.850* (0.482)	0.0477 (0.457)	-0.755* (0.394)	-1.431*** (0.394)	1.937*** (0.404)	-0.918 (0.564)
75-84 age class	-1.052** (0.493)	-0.903* (0.495)	-0.0116 (0.471)	-1.379*** (0.447)	-1.605*** (0.452)	2.094*** (0.443)	-0.620 (0.594)
Children	-0.0941* (0.0530)	-0.147*** (0.0518)	-0.187*** (0.0524)	-0.238*** (0.0575)	-0.0206 (0.0581)	-0.175*** (0.0659)	0.0927 (0.0720)
North-East	-0.0407 (0.132)	-0.0556 (0.129)	-0.0255 (0.130)	-0.157 (0.143)	-0.250* (0.135)	0.0252 (0.133)	-0.0950 (0.177)

Center	-0.210*	-0.173	-0.128	-0.165	-0.285**	0.0540	0.0600
	(0.127)	(0.124)	(0.128)	(0.139)	(0.138)	(0.133)	(0.173)
South (excluding Calabria and Campania)	-0.618***	-0.630***	-0.483***	-0.290**	-0.401***	-0.347***	0.323**
	(0.121)	(0.116)	(0.120)	(0.131)	(0.124)	(0.120)	(0.157)
Calabria and Campania	-0.811***	-0.721***	-0.700***	-0.823***	-1.052***	-0.131	0.266
	(0.173)	(0.176)	(0.181)	(0.169)	(0.178)	(0.171)	(0.243)
Between 11.701 € and 16.000 €	-0.576***	-0.399***	-0.415***	0.223	0.477***	-0.317**	0.116
	(0.155)	(0.144)	(0.133)	(0.145)	(0.127)	(0.157)	(0.190)
Between 16.001 € and 20.100 €	-0.274	-0.645***	-0.782***	0.0454	0.376**	0.847***	0.456**
	(0.172)	(0.162)	(0.151)	(0.183)	(0.181)	(0.196)	(0.233)
Between 20.101 € and 23.900 €	0.134	0.115	-0.0948	0.747***	0.991***	1.103***	0.872***
	(0.231)	(0.233)	(0.226)	(0.206)	(0.198)	(0.205)	(0.273)
Between 23.901 € and 28.000 €	0.788***	0.390*	0.153	0.0884	0.0756	1.199***	1.811***
	(0.216)	(0.217)	(0.222)	(0.210)	(0.224)	(0.181)	(0.325)
Between 28.001 € and 34.000 €	0.646**	0.962***	0.899***	-0.512*	-0.158	2.086***	0.443
	(0.261)	(0.273)	(0.296)	(0.296)	(0.272)	(0.261)	(0.451)
Between 34.001 € and 41.003 €	0.00271	0.729	0.379	0.577	3.042***	1.287***	1.770*
	(0.576)	(0.694)	(0.655)	(0.998)	(0.998)	(0.428)	(0.906)
Beyond 70.400	1.821	-1.353***	-0.593	3.349***	2.925***	1.028***	0.171
	(2.460)	(0.408)	(0.485)	(0.332)	(0.295)	(0.298)	(1.294)
Does not know/does not answer	0.185	-0.170	-0.199	-0.556***	-0.427***	1.351***	0.937***
	(0.128)	(0.126)	(0.124)	(0.140)	(0.131)	(0.134)	(0.179)
Primary education	-0.202	-0.386	-0.955***	1.506**	2.001***	-0.347	-0.0906
	(0.316)	(0.303)	(0.353)	(0.695)	(0.656)	(0.577)	(0.766)
Secondary education	1.065***	1.061***	0.470	1.975***	2.400***	0.331	-0.0173
	(0.352)	(0.339)	(0.382)	(0.710)	(0.677)	(0.599)	(0.788)
Tertiary education	1.668***	1.903***	1.040***	2.459***	2.889***	0.0576	0.564
	(0.377)	(0.361)	(0.402)	(0.720)	(0.692)	(0.611)	(0.817)
Single	-0.499	0.152	0.460	0.867**	0.234	0.0983	1.245***
	(0.313)	(0.308)	(0.322)	(0.420)	(0.424)	(0.370)	(0.429)
Married/civil union	-0.189	0.129	0.230	0.801**	0.278	0.480	0.181
	(0.246)	(0.228)	(0.261)	(0.374)	(0.388)	(0.320)	(0.349)
Separated	-0.612*	-0.382	-0.265	0.560	0.166	-0.145	0.205
	(0.336)	(0.316)	(0.335)	(0.425)	(0.445)	(0.433)	(0.457)
Divorced	-0.809**	-0.206	-0.0408	0.883**	0.244	0.290	1.156**
	(0.369)	(0.405)	(0.391)	(0.446)	(0.473)	(0.463)	(0.510)
Student	-0.180	-0.288	-0.438	-0.179	0.135	0.497**	0.278
	(0.316)	(0.307)	(0.303)	(0.256)	(0.257)	(0.237)	(0.343)
Houseworker	0.979***	0.975***	0.703***	0.169	0.237	0.237	-0.364
	(0.231)	(0.231)	(0.214)	(0.212)	(0.202)	(0.240)	(0.293)
Retired	0.822***	0.521*	0.263	0.756***	0.733***	0.0207	-0.119
	(0.269)	(0.269)	(0.243)	(0.244)	(0.240)	(0.279)	(0.359)
Employed	0.116	0.0878	0.0676	0.255	0.284*	0.0641	-0.0408

	(0.187)	(0.191)	(0.164)	(0.162)	(0.154)	(0.187)	(0.233)
Head of province	0.241*	0.172	-0.198	0.387***	0.445***	-0.167	0.307*
	(0.124)	(0.125)	(0.127)	(0.134)	(0.135)	(0.131)	(0.168)
Medium municipality	-0.0343	-0.0895	-0.525***	0.228*	0.373***	-0.236*	0.269
	(0.119)	(0.121)	(0.125)	(0.135)	(0.138)	(0.128)	(0.166)
Small municipality	-0.0504	-0.114	-0.266*	0.226	0.339**	-0.332**	0.444**
	(0.135)	(0.136)	(0.140)	(0.154)	(0.152)	(0.140)	(0.188)
Good Self-assessed-health	0.432**	0.447**	0.119	-0.193	-0.157	0.500***	0.141
	(0.173)	(0.184)	(0.183)	(0.162)	(0.143)	(0.142)	(0.220)
Discrete Self-assessed-health	-0.612***	-0.319	-0.357*	-0.733***	-0.593***	0.119	-0.456*
	(0.206)	(0.216)	(0.214)	(0.211)	(0.196)	(0.192)	(0.261)
Bad Self-assessed-health	-1.575***	-1.090***	-1.206***	-0.350	-0.363	0.687*	-0.978***
	(0.277)	(0.286)	(0.283)	(0.300)	(0.282)	(0.357)	(0.340)
Very bad Self-assessed-health	-2.277***	-1.518***	-1.672***	-0.424	0.231	2.117***	-2.530***
	(0.302)	(0.312)	(0.354)	(0.540)	(0.522)	(0.408)	(0.579)
Religious	1.009***	0.874***	0.745***	0.785***	1.168***	0.338***	1.640***
	(0.0929)	(0.0938)	(0.0965)	(0.0929)	(0.0939)	(0.0935)	(0.132)
/cut1	-4.031***	-3.684***	-3.553***	-5.461***	-5.494***	-1.540**	
	(0.650)	(0.637)	(0.616)	(0.980)	(1.050)	(0.691)	
/cut2	-3.278***	-2.751***	-2.830***	-4.893***	-4.798***	-0.555	
	(0.640)	(0.628)	(0.614)	(0.929)	(0.899)	(0.687)	
/cut3	-2.502***	-1.878***	-2.020***	-3.129***	-2.893***	0.337	
	(0.631)	(0.622)	(0.611)	(0.876)	(0.803)	(0.687)	
/cut4	-1.782***	-0.895	-1.206**	-1.853**	-1.555*	1.596**	
	(0.625)	(0.617)	(0.610)	(0.873)	(0.794)	(0.689)	
/cut5	-0.680	0.107	-0.0706	-0.914	-0.644	3.017***	
	(0.620)	(0.613)	(0.608)	(0.878)	(0.799)	(0.692)	
/cut6	0.504	1.360**	1.102*	0.0105	0.220	4.115***	
	(0.616)	(0.611)	(0.608)	(0.880)	(0.803)	(0.695)	
/cut7	1.645***	2.938***	2.532***	1.770**	1.887**	4.805***	
	(0.614)	(0.614)	(0.614)	(0.879)	(0.807)	(0.700)	
/cut8	2.985***	6.119***	7.158***	3.211***	3.392***	6.385***	
	(0.619)	(0.706)	(1.164)	(0.880)	(0.808)	(0.715)	
/cut9	6.890***			5.431***	5.404***	7.823***	
	(0.855)			(0.888)	(0.814)	(0.776)	
/cut10				6.896***	6.563***		
				(0.922)	(0.824)		
Constant							-0.759 (0.937)
Observations	2,001	2,001	2,001	2,001	2,001	2,001	2,001
Wald χ^2	791.24 (0.00)	757.82 (0.00)	591.90 (0.00)	508.14 (0.00)	563.22 (0.00)	472.57 (0.00)	357.80 (0.00)

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Table 5 Macroregional inequalities, generativity, participation and life satisfaction (full estimates findings)

	(1)	(2)	(3)	(4)
VARIABLES				
Female	-0.356*** (0.0952)	-0.355*** (0.0950)	-0.0737 (0.146)	-0.0345 (0.147)
25-34 age class	-1.642*** (0.249)	-1.579*** (0.245)	-1.442*** (0.292)	-1.374*** (0.289)
35-44 age class	-0.970*** (0.347)	-0.698** (0.345)	-0.621 (0.460)	-0.367 (0.462)
45-54 age class	-1.217*** (0.350)	-0.970*** (0.348)	-1.226** (0.483)	-1.049** (0.484)
55-64 age class	-0.933** (0.380)	-0.746** (0.378)	-0.740 (0.511)	-0.651 (0.511)
65-74 age class	-0.496 (0.437)	-0.278 (0.435)	-0.330 (0.590)	-0.248 (0.589)
75-84 age class	-0.0161 (0.446)	0.199 (0.443)	-0.394 (0.638)	-0.291 (0.634)
Children	0.220*** (0.0538)	0.0978* (0.0561)	0.408*** (0.101)	0.350*** (0.104)
North-East	-0.0244 (0.140)	-0.0844 (0.141)	-0.0268 (0.204)	-0.0896 (0.208)
Center	-0.350** (0.143)	-0.373** (0.146)	-0.840*** (0.229)	-0.849*** (0.229)
South (excluding Calabria and Campania)	-0.453** (0.229)	-0.442* (0.233)	-1.262*** (0.346)	-1.219*** (0.347)
Calabria and Campania	-1.231*** (0.296)	-1.292*** (0.298)	-1.943*** (0.427)	-1.903*** (0.426)
Between 11.701 € and 16.000 €	-0.176 (0.153)	-0.151 (0.153)	-0.570*** (0.204)	-0.473** (0.208)
Between 16.001 € and 20.100 €	-0.397** (0.185)	-0.370** (0.184)	-0.827*** (0.261)	-0.659** (0.262)
Between 20.101 € and 23.900 €	-0.586** (0.228)	-0.602*** (0.228)	-1.147*** (0.330)	-0.921*** (0.329)
Between 23.901 € and 28.000 €	-0.469** (0.226)	-0.526** (0.223)	-1.147*** (0.367)	-0.924** (0.366)
Between 28.001 € and 34.000 €	0.117 (0.358)	0.0967 (0.351)	-0.241 (0.473)	-0.0774 (0.504)
Between 34.001 € and 41.003 €	0.0102 (0.481)	0.129 (0.461)	1.359 (1.098)	1.635 (1.098)
Beyond 70.400	1.724* (1.028)	1.758* (1.009)		
Does not know/does not answer	-0.109 (0.145)	-0.121 (0.141)	-0.166 (0.210)	0.0519 (0.201)
Primary education	0.229 (0.341)	0.192 (0.360)	-0.0877 (1.024)	-0.279 (1.030)
Secondary education	1.404***	1.280***	1.130	0.862

	(0.370)	(0.388)	(1.050)	(1.054)
Tertiary education	2.057***	1.945***	1.773*	1.606
	(0.405)	(0.421)	(1.074)	(1.078)
Single	-0.176	0.463	-0.189	0.415
	(0.305)	(0.326)	(0.609)	(0.628)
Married/civil union	0.363*	0.294	0.492	0.480
	(0.214)	(0.221)	(0.525)	(0.527)
Separated	-0.382	0.106	-0.414	0.129
	(0.313)	(0.328)	(0.759)	(0.766)
Divorced	-0.516	-0.00969	0.246	0.796
	(0.372)	(0.379)	(0.721)	(0.723)
Student	0.633**	0.213	1.444***	1.279***
	(0.255)	(0.256)	(0.364)	(0.372)
Houseworker	1.357***	1.223***	0.429	0.382
	(0.247)	(0.248)	(0.339)	(0.341)
Retired	0.982***	0.858***	0.612	0.630
	(0.283)	(0.282)	(0.406)	(0.409)
Employed	0.670***	0.499***	0.139	0.152
	(0.195)	(0.193)	(0.264)	(0.268)
Head of province	-0.116	-0.134	-0.0841	-0.0175
	(0.137)	(0.138)	(0.215)	(0.215)
Medium municipality	-0.278**	-0.324**	-0.233	-0.179
	(0.136)	(0.138)	(0.220)	(0.220)
Small municipality	-0.337**	-0.376**	-0.408*	-0.378
	(0.149)	(0.150)	(0.240)	(0.243)
Good Self-assessed-health	-0.792***	-0.792***	-1.046***	-1.061***
	(0.157)	(0.157)	(0.228)	(0.235)
Discrete Self-assessed-health	-1.928***	-1.788***	-1.767***	-1.764***
	(0.195)	(0.195)	(0.307)	(0.313)
Bad Self-assessed-health	-3.373***	-3.142***	-2.884***	-2.766***
	(0.266)	(0.271)	(0.578)	(0.583)
Very bad Self-assessed-health	-4.455***	-4.294***		
	(0.286)	(0.295)		
Religious	0.655***	0.681***	0.864***	1.023***
	(0.101)	(0.0974)	(0.154)	(0.153)
Purchasing Power Parity Index	-2.56e-05	-6.13e-05	-0.00210*	-0.00197
	(0.000774)	(0.000793)	(0.00125)	(0.00126)
Radiation	0.00153**	0.00117*	0.00220**	0.00188**
	(0.000625)	(0.000645)	(0.000897)	(0.000909)
Generative	-0.108		0.403***	
	(0.0799)		(0.123)	
Generative composite		4.910***		3.962***
		(0.657)		(0.919)
Participative	3.955***	4.175***	3.991***	4.244***
	(0.260)	(0.264)	(0.368)	(0.374)
/cut1	-4.828***	-3.244**		
	(1.393)	(1.410)		
/cut2	-3.870***	-2.296*		
	(1.315)	(1.343)		
/cut3	-2.243*	-0.674		
	(1.281)	(1.312)		

/cut4	-1.033 (1.271)	0.533 (1.304)		
/cut5	-0.0555 (1.271)	1.512 (1.303)		
/cut6	1.009 (1.275)	2.597** (1.306)		
/cut7	2.332* (1.279)	3.952*** (1.310)		
/cut8	4.221*** (1.281)	5.881*** (1.313)		
/cut9	6.499*** (1.282)	8.172*** (1.315)		
/cut10	9.117*** (1.286)	10.79*** (1.317)		
Constant			-4.944** (2.240)	-4.762** (2.285)
Observations	2,001	2,001	1,955	1,955
Wald χ^2	1240.69 (0.00)	1309.13 (0.00)	421.67 (0.00)	425.72 (0.00)

Dependent variable: life satisfaction (columns 1-2), very happy (columns 3-4). Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Omitted benchmarks: male, no education, student, aged 18-24, income up to 11.700 euros, never married, living in North-West and head of region, very good health. For full estimate details see Appendix.

Figure 4.1 Trust in politics

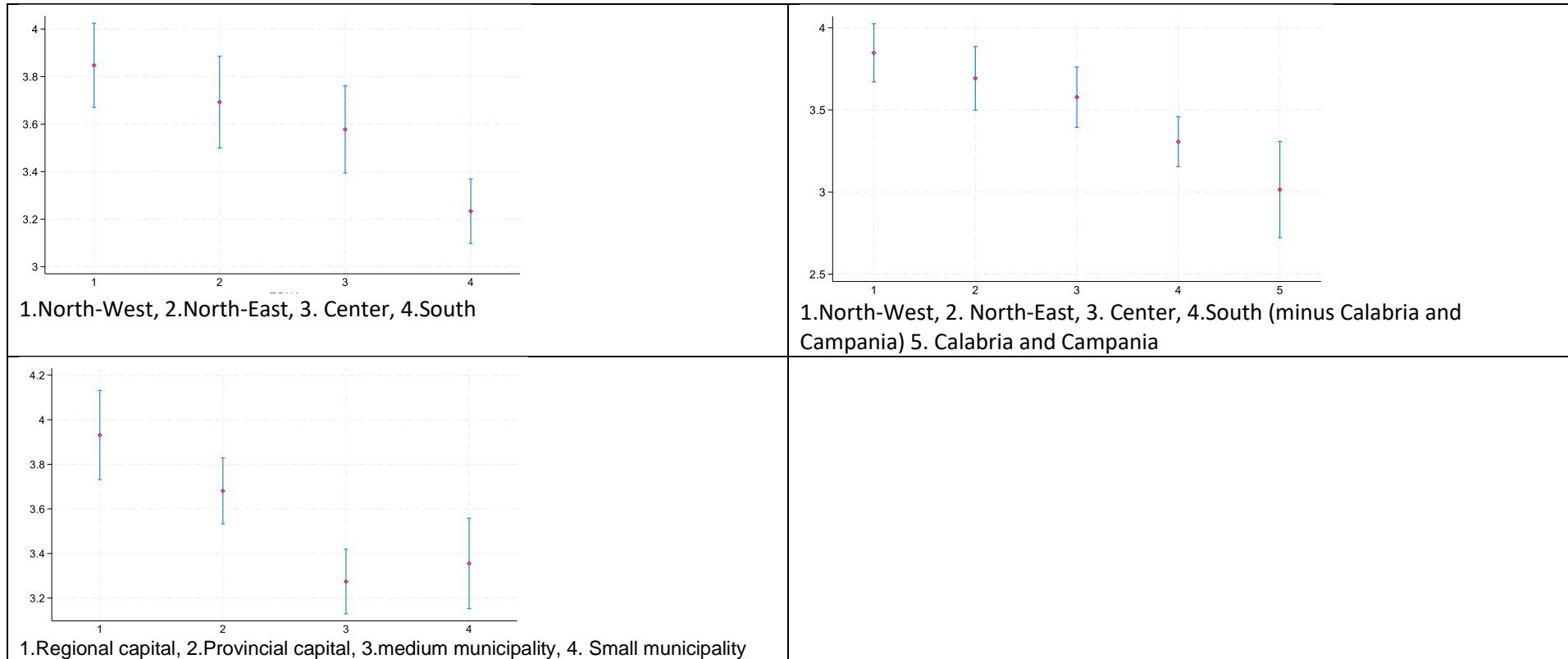


Figure 4.2 Trust in police

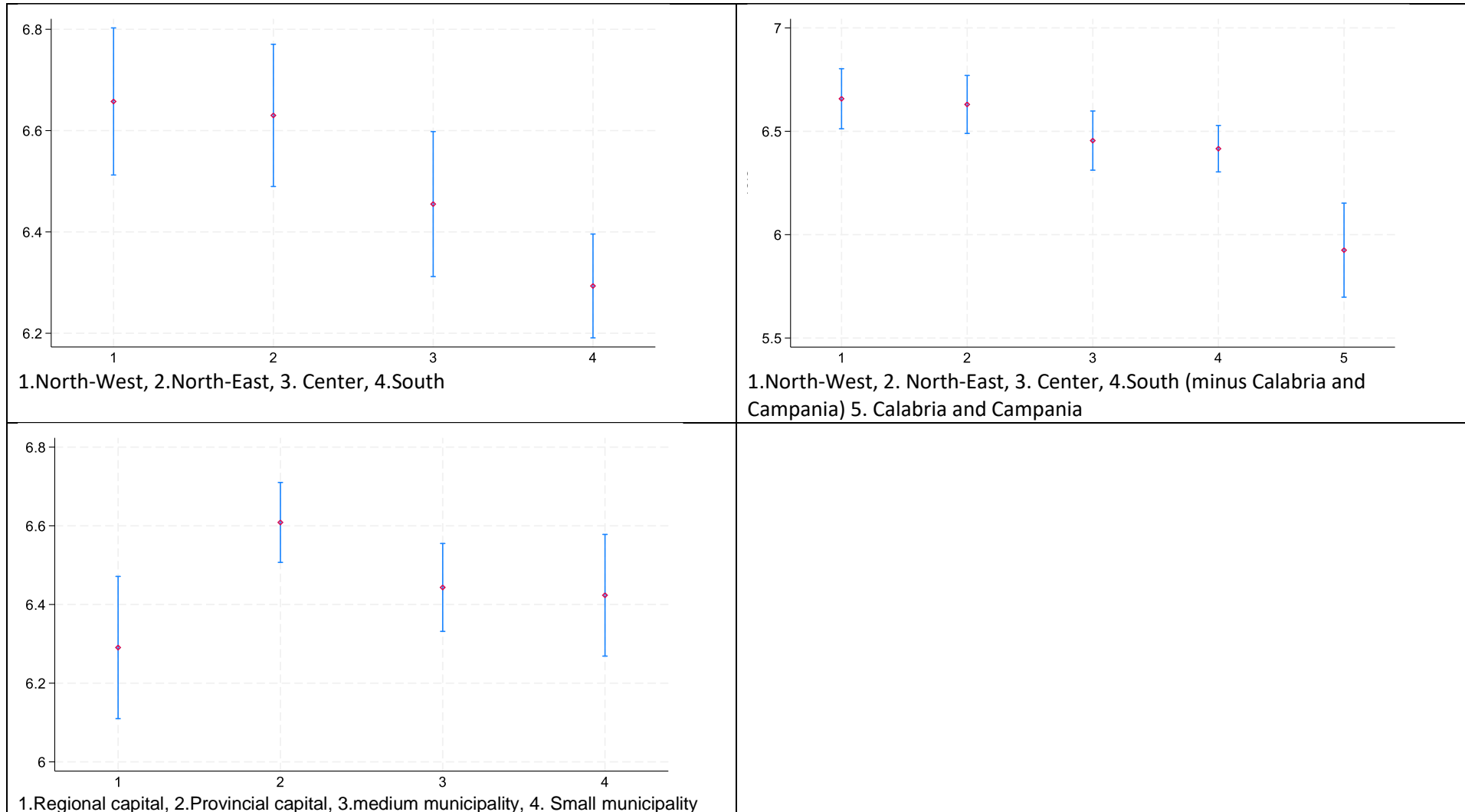


Figure 4.3 Trust in the European Parliament

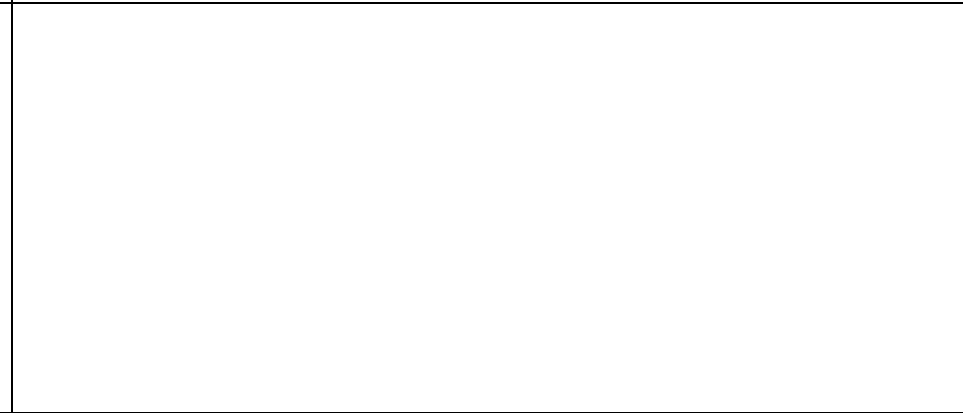
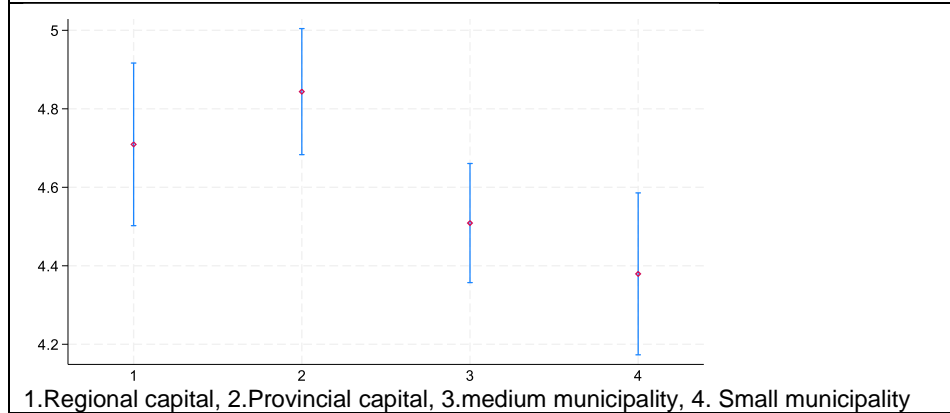
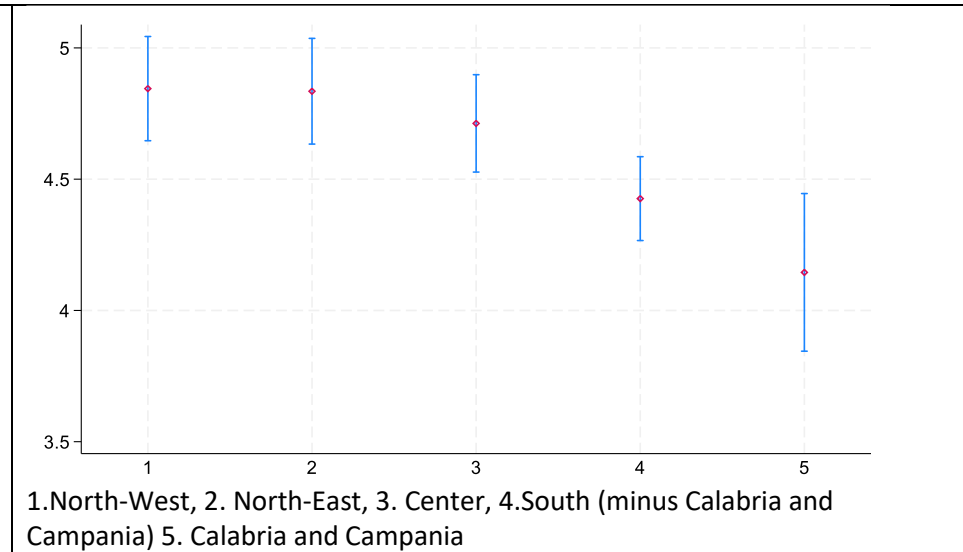
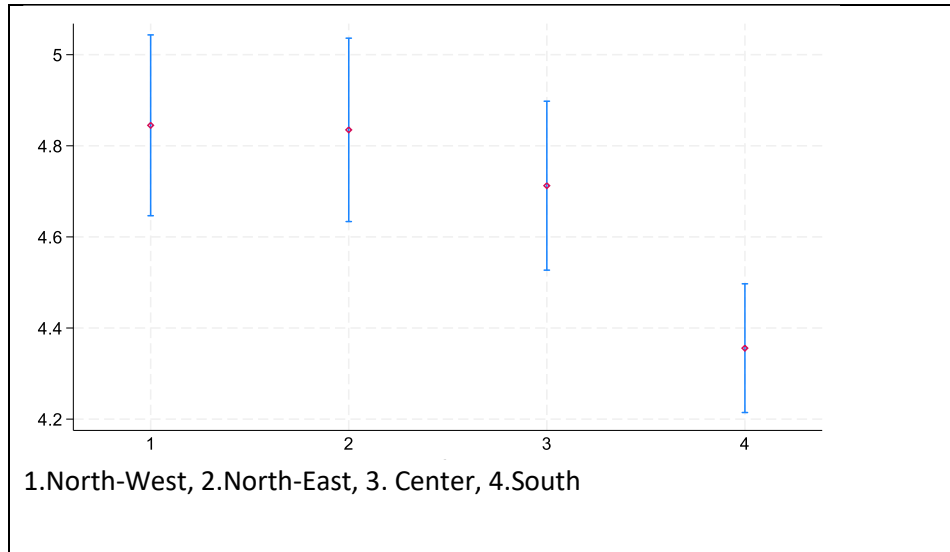


Figure 4.4 Trust in political parties

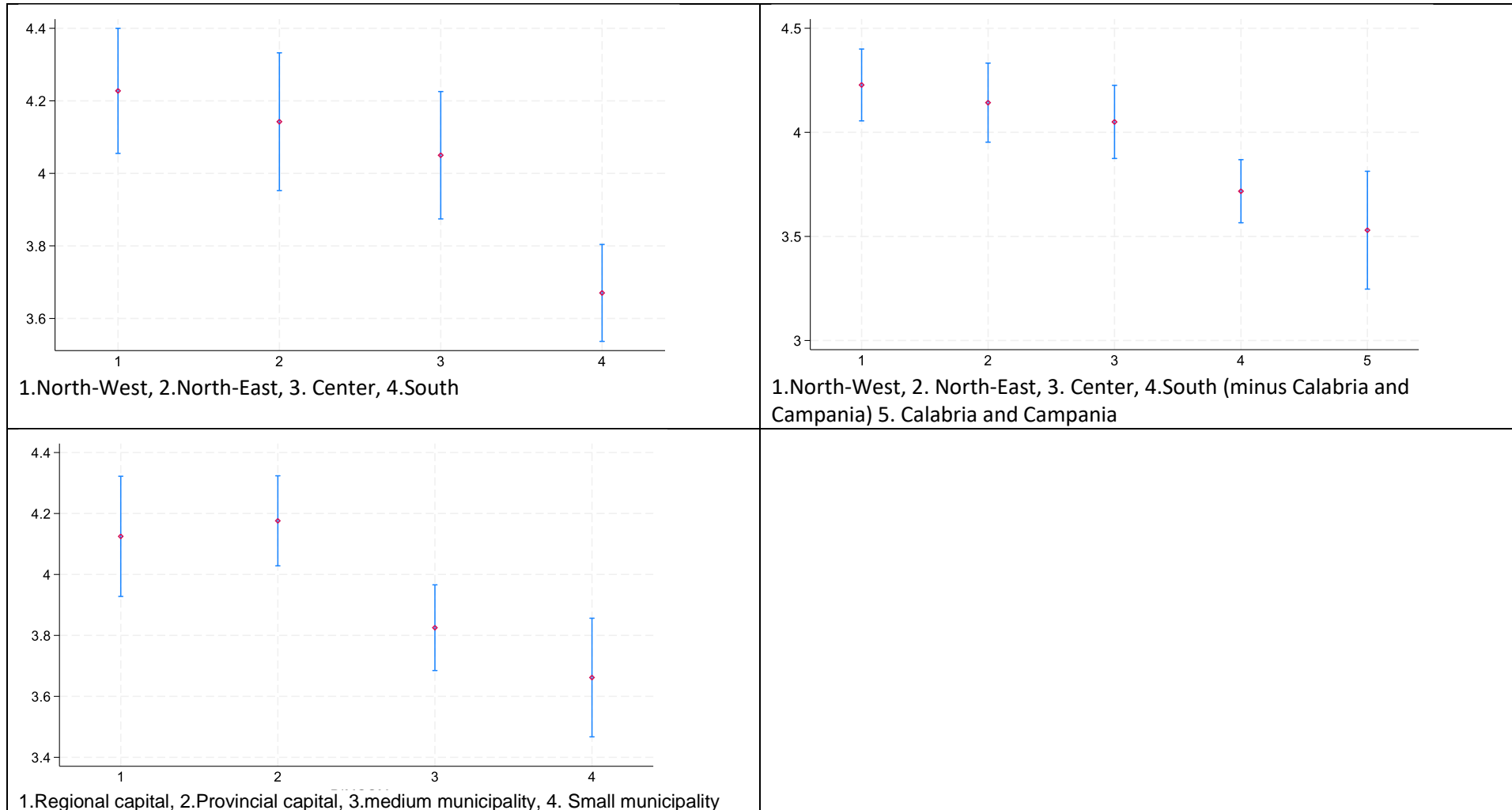


Figure 4.5 Trust in the judiciaries

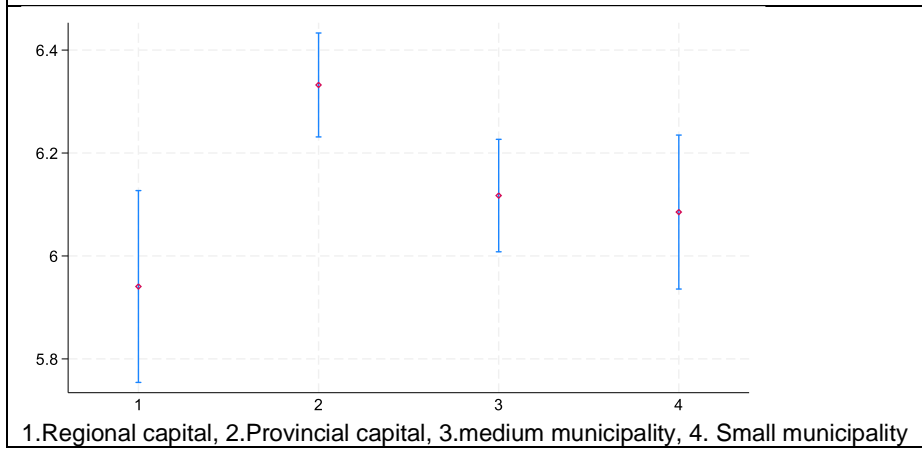
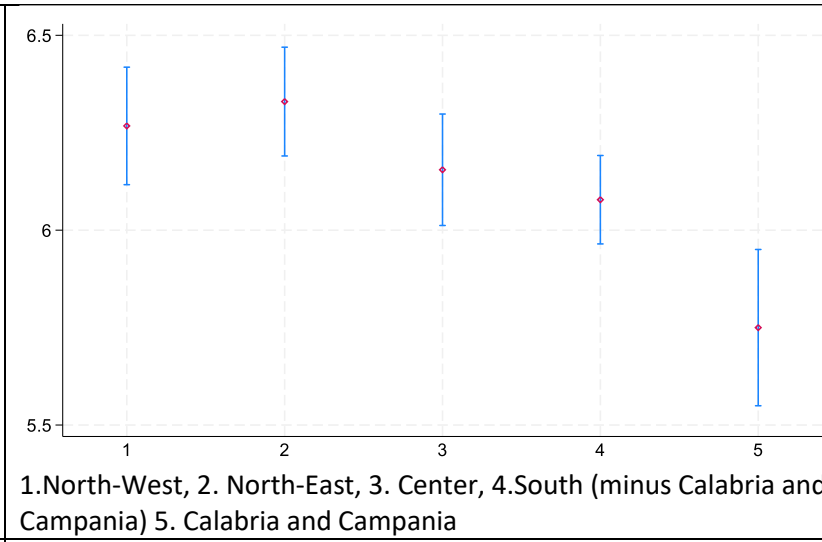
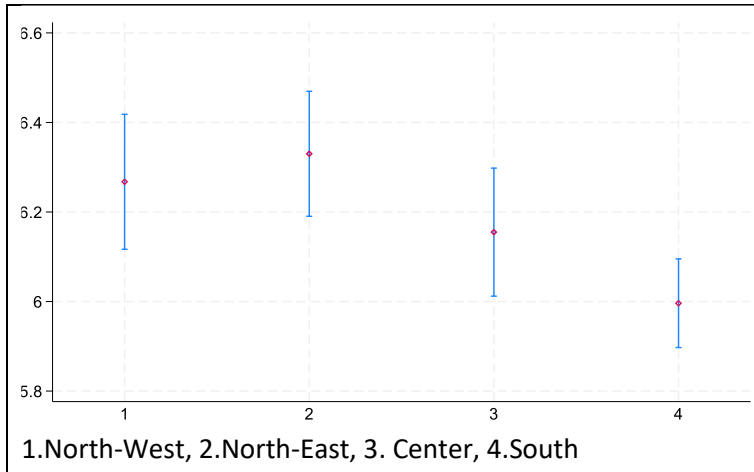


Figure 4.6 Equal opportunities in education

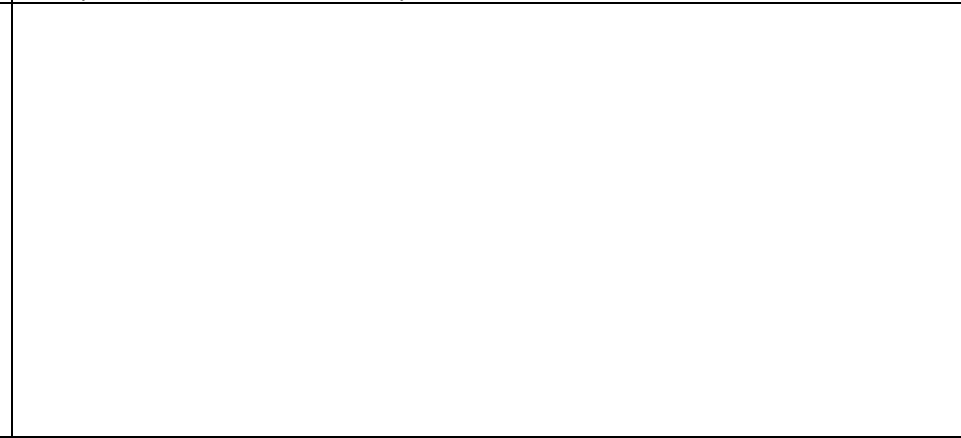
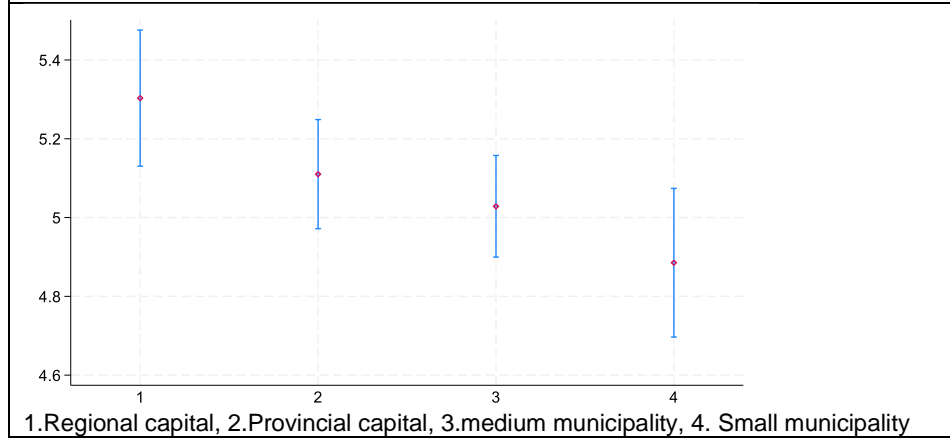
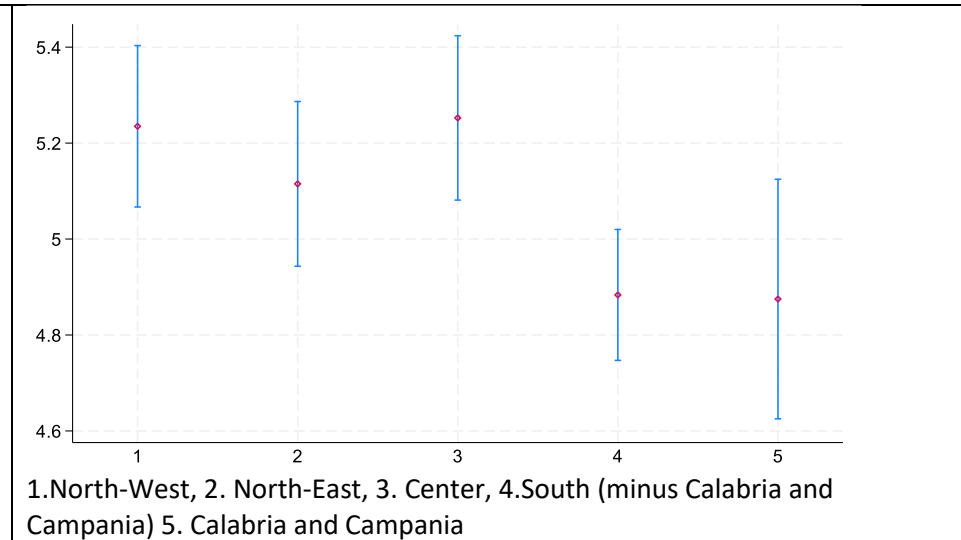
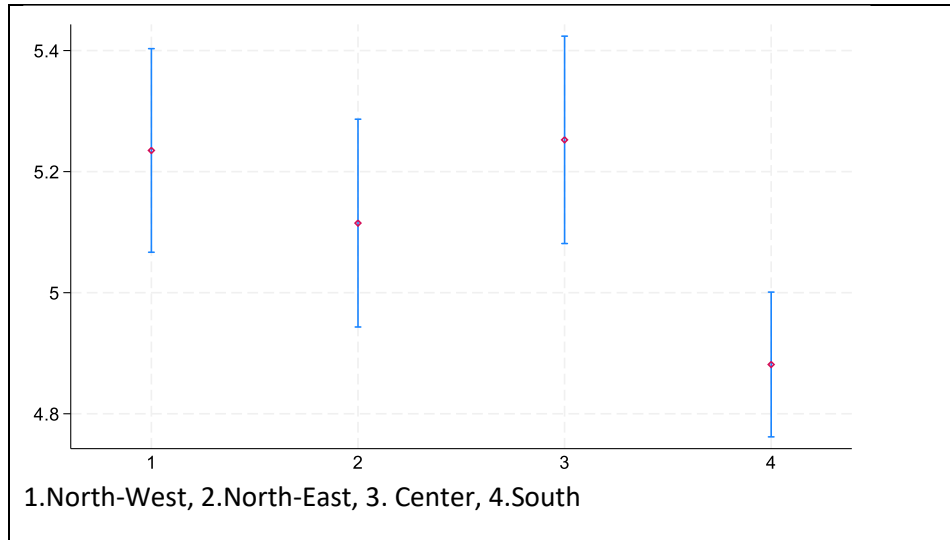


Figure 4.7 People to rely on except family members

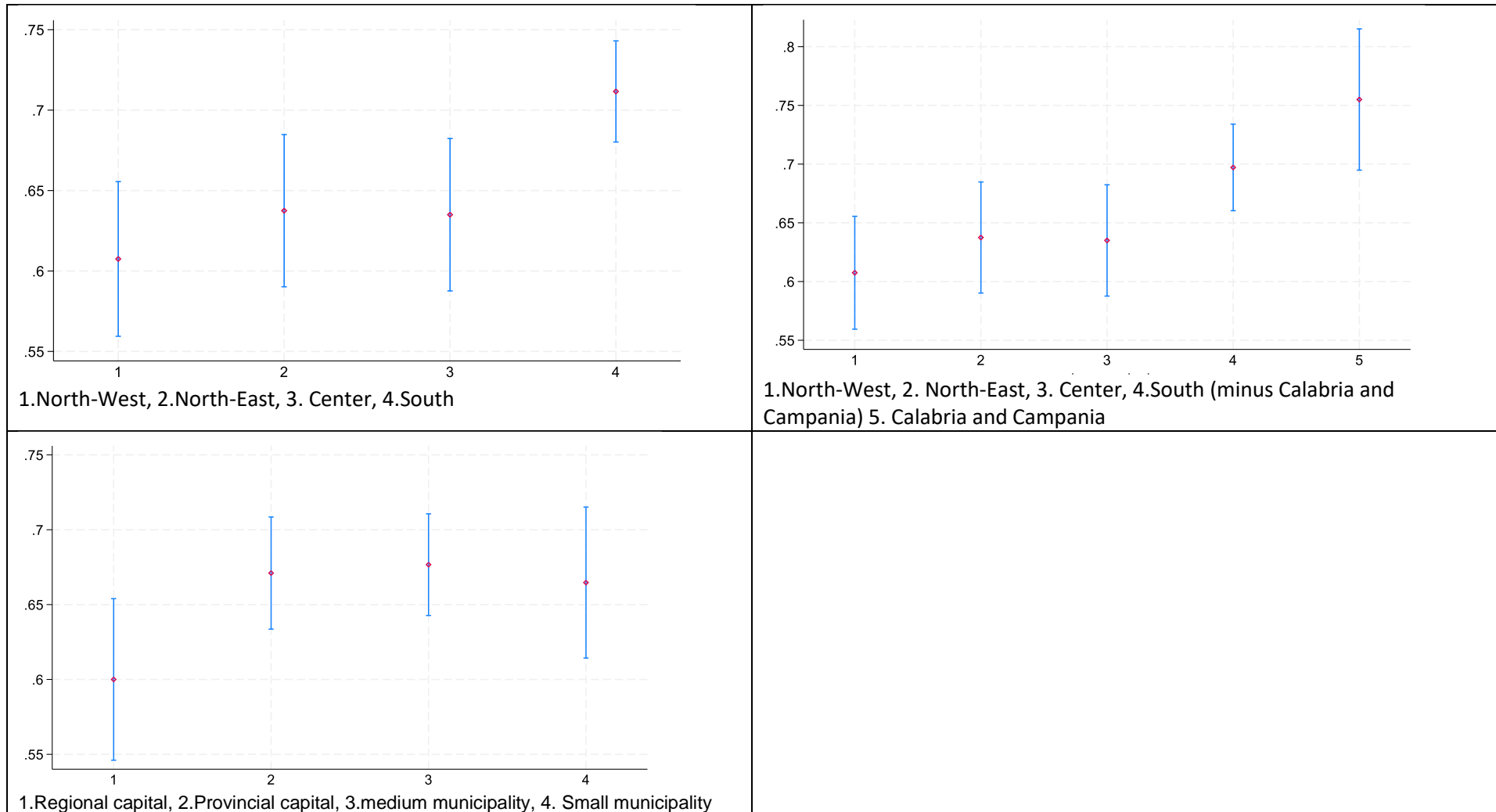


Table 6 Instrumental variable estimates (full estimates findings)

VARIABLES	(1) IV estimate Second stage	(2) IV estimate First stage	(3) Non IV estimate	(4) Falsification test
Generative/ Participative/	5.213*** (1.756)		5.268*** (0.314)	
Instrument		0.779*** (0.107)		2.846 (5.222)
Female	-0.189*** (0.0628)	-0.00971** (0.00456)	-0.188*** (0.0631)	-0.365* (0.188)
25-34 age class	-1.060*** (0.157)	-0.0388*** (0.0128)	-1.058*** (0.182)	-0.0799 (0.424)
35-44 age class	-0.675*** (0.217)	-0.0438** (0.0178)	-0.672*** (0.236)	-0.454 (0.534)
45-54 age class	-0.729*** (0.226)	-0.0506*** (0.0180)	-0.726*** (0.238)	0.273 (0.583)
55-64 age class	-0.548** (0.236)	-0.0450** (0.0189)	-0.546** (0.252)	0.333 (0.658)
65-74 age class	-0.176 (0.282)	-0.0613*** (0.0209)	-0.173 (0.286)	1.363 (0.845)
75-84 age class	0.119 (0.298)	-0.0627*** (0.0214)	0.123 (0.297)	1.387 (0.897)
Children	0.0771* (0.0415)	0.00986*** (0.00270)	0.0765** (0.0353)	0.0849 (0.110)
North-East	-0.0413 (0.0930)	0.000175 (0.00670)	-0.0416 (0.0876)	-0.344 (0.317)
Center	-0.194* (0.0930)	0.00188 (0.00670)	-0.193** (0.0876)	0.221 (0.317)

	(0.102)	(0.00742)	(0.0904)	(0.359)
South (excluding Calabria and Campania)	-0.249 (0.154)	-0.00108 (0.0112)	-0.248* (0.149)	0.237 (0.501)
Calabria and Campania	-0.749*** (0.186)	0.00718 (0.0140)	-0.748*** (0.194)	-0.101 (0.674)
Between 11.701 € and 16.000 €	-0.000203 (0.105)	-0.0113* (0.00647)	0.000559 (0.0890)	0.480 (0.355)
Between 16.001 € and 20.100 €	-0.170 (0.132)	-0.0261*** (0.00854)	-0.169 (0.112)	0.695 (0.474)
Between 20.101 € and 23.900 €	-0.235* (0.141)	0.0122 (0.0109)	-0.235* (0.131)	1.714*** (0.571)
Between 23.901 € and 28.000 €	-0.142 (0.153)	-0.00735 (0.0118)	-0.141 (0.135)	1.065* (0.622)
Between 28.001 € and 34.000 €	0.166 (0.241)	-0.0572*** (0.0161)	0.169 (0.184)	1.804*** (0.660)
Between 34.001 € and 41.003 €	-0.0286 (0.404)	-0.0131 (0.0197)	-0.0278 (0.245)	
Beyond 70.400	0.790 (0.887)	0.144* (0.0789)	0.784** (0.375)	
Does not know/does not answer	-0.0666 (0.101)	-0.0215*** (0.00590)	-0.0653 (0.0868)	0.622* (0.319)
Primary education	0.228 (0.300)	-0.0293*** (0.0106)	0.228 (0.280)	-0.685 (1.026)
Secondary education	0.914*** (0.343)	-0.0204 (0.0183)	0.910*** (0.296)	-0.263 (1.291)

Tertiary education	1.289*** (0.401)	-0.0118 (0.0247)	1.282*** (0.308)	-0.555 (1.446)
Single	0.264 (0.244)	-0.0248 (0.0178)	0.251 (0.237)	0.0926 (0.446)
Married/civil union	0.144 (0.176)	0.0551*** (0.0153)	0.127 (0.202)	0.0542 (0.389)
Separated	0.0399 (0.251)	-0.00474 (0.0205)	0.0259 (0.246)	0.0849 (0.417)
Divorced	0.0142 (0.267)			
Widow		0.0416** (0.0172)	-0.0166 (0.258)	-0.0641 (0.626)
Student	-0.0235 (0.170)	0.0334*** (0.0128)	-0.0255 (0.185)	-1.807*** (0.619)
Houseworker	1.010*** (0.155)	0.0169 (0.0109)	1.009*** (0.155)	
Retired	0.681*** (0.186)	0.0246* (0.0131)	0.679*** (0.180)	-0.751 (0.586)
Employed	0.447*** (0.117)	0.00999 (0.00942)	0.446*** (0.126)	-0.413 (0.487)
Unemployed				-1.237** (0.542)
Head of province	-0.117 (0.0890)	0.00285 (0.00619)	-0.117 (0.0893)	0.0707 (0.279)
Medium municipality	-0.272*** (0.0904)	-0.00223 (0.00649)	-0.272*** (0.0910)	-0.0657 (0.289)
Small municipality	-0.202** (0.102)	-0.00790 (0.00706)	-0.201** (0.0969)	-0.563 (0.351)
Good Self-assessed-health	-0.547*** (0.0989)	-0.00260 (0.00871)	-0.547*** (0.0963)	-1.186*** (0.324)

Discrete Self- assessed-health	-1.176*** (0.156)	-0.0535*** (0.0104)	-1.173*** (0.120)	-2.018*** (0.397)
Bad Self- assessed-health	-2.200*** (0.222)	-0.0801*** (0.0118)	-2.196*** (0.177)	-2.631*** (0.507)
Very bad Self- assessed-health	-3.298*** (0.266)	-0.0680*** (0.0122)	-3.294*** (0.196)	-4.454*** (0.952)
Repligious	0.291*** (0.0979)	0.0421*** (0.00459)	0.288*** (0.0627)	0.363 (0.226)
Purchasing Power Parity Index	9.38e-05 (0.000521)	4.92e-05 (3.86e-05)	9.28e-05 (0.000509)	0.00263 (0.00174)
Radiation	0.000801* (0.000445)	2.07e-05 (3.01e-05)	0.000798** (0.000396)	-0.000282 (0.00163)
Constant	3.664*** (0.912)	0.00128 (0.0620)	3.672*** (0.863)	4.368 (2.910)
Observations	2,001	2,001	2,001	270
R-squared	0.486	0.406	0.486	0.376

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

