

# Education as a Resource of Social Innovation

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## Abstract

Focusing on the Italian context, this research aims to analyze the relationship between investment in education and economic development through a critical exam of the human capital theory. This paradigm is compared with the social investment paradigm, particularly the Esping-Andersen's thesis, which seems more useful to unfold the link between social stratification and education level as a resource of social innovation. From this standpoint, our hypothesis is that educational policies have positive effects on the economic system if they are oriented to reduce socio-economic inequalities increasing the rate of social inclusion, which can promote a wider social innovation.

## Keywords

social structure, education policies, social innovation, cognitive capital, social inequalities

## Introduction

This article addresses the issue of the relationship between investment in education and economic development through a critical exam of the human capital theory and its thesis on the potential economic return of schooling (Becker, 1964; Cunha & Heckman, 2009; Romer, 1990). This theory seems to propose an abstract and formalistic vision of social actor, because it does not examine the reproduction of social inequalities by the education systems. The paradigm of social investment, instead, appears more useful to analyze the relation between investments in education and socio-economic development. Here, the Welfare (which also includes social expenditure in education) represents an investment that can produce economic development (Hemerijck, 2012; Morel, Palier, & Palme, 2012). In particular, Esping-Andersen (2005) emphasizes the importance of the early childhood services designed as tools for a universalist educational policy aimed to contrast socio-economic inequalities and which produces economic development.

Based on this framework, in this article, research findings on territorial units about the Italian local societies (Bagnasco, 2012) are reported. The study combines the political economy perspective with research on the relation between investment in education and economic development. In particular, to test the human capital theory, two techniques are used: the principal component analysis (PCA) and the path analysis. Our research stresses how the Esping-Andersen's theory (Esping-Andersen, 2013) has a good heuristic validity as long as it highlights the role of social investment in tackling socio-economic inequalities. In short, our hypothesis states the following:

**Hypothesis 1:** Educational policies have positive effects on the economic system if they are oriented to reduce socio-economic inequalities increasing the rate of social inclusion.

In short, our analysis of the Italian case leads us to better qualify the paradigm of social investment considering the link between the investment in education, socio-economic inequalities, and economic development.

## Criticisms to the Human Capital Theory

According to the National Institute of Statistics (Istat), from 2004 to 2013, the rate of high school graduates in Italy tends to drop (respectively, from 77.3% to 77.0%) while the university entry rate significantly fell by 15 percentage points. At the same period, the youth unemployment rate (aged 15-24) doubled reaching the 41.5% in 2013. Reasonably, a high unemployment level contributes to discourage young people to participate in a labor market where job insecurity and low wages are expanding. Some studies show how, in Italy, these phenomena are closely related to the unequal distribution of power among social classes, which are also

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increased while the economic crisis has worsened (Barone & Ruggera, 2015; Schizzerotto & Barone, 2006).

To face these economic difficulties, it would seem reasonable to follow the directions of the main international institutions (i.e., the International Monetary Fund [IMF], World Bank, etc.). They emphasize the importance to invest in education to increase the development level (World Bank, 1997). The recipe is simple: More investments in the education leads to the development. Nevertheless, the relation between investment in education and development is more complex. First, it should be clarified whether we refer only to the mere economic growth or we include a profound change in the social structure, increasing the social inclusion level (Bottazzi, 2009). To unfold the question, it is useful to critically investigate the human capital theory, which the international institutions seem to assume as a paradigm.

Becker (1964) and economists such as Heckman (Cunha & Heckman, 2009; Heckman, Stixrud, & Urzua, 2006) developed the concept of human capital emphasizing its nature of latent factor, composed of cognitive and emotional skills. In this way, education can be considered an investment (Becker, 1962, 1975; Schultz, 1960) or a commodity (Fershtman, Murphy, & Weiss, 1996). In the first approach, which chooses to extend his education, invests resources (money, time, cognitive skills) to achieve social and economic benefits in a future time. In the second perspective, education is a source of psychological well-being for those who choose to extend it. The well-being comes from the acquisition of knowledge that allows a more effective drawing of the collective cultural heritage. Despite these differences, both the approaches separate the social actor from its context. They do not take in consideration that investment and consumption choices are partly unconscious constructed by subjects over time and they are often intertwined dimensions, as Bourdieu (1998) suggests.

Therefore, the educational choices should be considered as a result of social stratification and the meanings attributed to the education by individuals belonging to different classes. It leads us to consider the *social integration*—how subjects interact in the power relations that determine the social stratification—examining the subjective meanings attributed to it, and the *systemic integration*, in other words, the relation between the institutional spheres of society, such as polity, economy, and education (Lockwood, 1964). Studying school paths implies examining both levels of analysis (social integration and systemic integration) avoiding removal of one level or overlap between them. The risk of removal is evident in the functionalist theory. Focusing on the systemic integration, functionalism supposes an automatic positive relation between education and economic development.<sup>1</sup>

The scholars of the human capital theory largely share the functionalist frame, but they pay attention to the technological innovation: The education level promotes innovations that produce economic development. Yet, the thesis on the positive relation between investment in education and

development is controversial. Sometimes, research findings on territorial aggregates are used to design interpretative patterns on the individual behaviors, risk falling into the *ecological fallacy* (Robinson, 1950). In this debate, Romer (1990) proposes a thesis to avoid this kind of fallacy. According to him, the economic development depends on the knowledge embedded in technology that requires the acquisition of complex skills. The development of human capital—as a set of skills not directly related to the education—needs a socio-cultural environment characterized by a high education level. In short, a good level of education among the population is a precondition for the constitution of the human capital, a latent factor that promotes economic development. Despite Romer's perspective appearing sophisticated, his thesis falls in a tautological statement. In fact, he refers to the embedded knowledge in technologies to explain economic development through the technological innovation. Nonetheless, he stressed preconditions that allow the economic development: a social context in which the schooling had sufficient success to significantly increase the level of education.

On this point, institutionalist sociologists (Meyer, Boli, & Ramirez, 1997) similarly noted that the relation between education and development is weak because these spheres diverge over time. On one hand, the aim of the education system is to expand the socialization of citizens; on the other hand, the production structure is interested in the cost containment and in a more selective function of education. Yet, this standpoint does not consider that governments do not invest regularly in education and often the education demand leads the offering, and not vice versa (Schizzerotto & Barone, 2006). Hence, if the institutionalists underestimate the education/stratification link, because they do not consider the dimension of social integration, on the contrary, Marxists and credentialism theorists stress it.

For Marxists, the school does not determinate any real influence to the social mobility, but it reproduces the capitalist class stratification and disciplines the future working class wrapping in a meritocratic rhetoric (Bowles & Gintis, 2003; Heath, 1981). Schools act as socialization agents that meet subordination needs of capitalism and, selecting subjects, legitimize social inequalities. In spite of Marxist determinism, several studies in Italy seem to confirm the thesis of the inequalities reproduction and many researches in other countries obtained similar findings (Ballarino, Bernardi, Requena, & Schadee, 2009; Bourdieu, 1990; Müller & Shavit, 1998; Shavit, Arum, & Gamoran, 2005; Triventi, 2015; Weis, 2010). In contrast, credentialism scholars provide a different thesis on the relation between the education and economic development. In a struggle between middle upper classes (which aim to close and control their social position through higher investment in education) and lower middle classes (which aim to reach and usurp better positions), qualifications are positional goods that allow to move toward more advantageous professional positions (Parkin, 1971). This happens because employers use the curricula to

reduce the assessment time of the skills and abilities of prospective employees. From this perspective, social classes use education as a source to control social inequality and not to the economic development. In fact, middle upper classes, through their better argumentative capacity, do not only monopolize the more advantageous social positions but can also create them (Collins, 1979).

Thanks to the Marxist and credentialism perspectives, we can highlight three criticisms about the human capital theory: (a) It does not consider the capacity or will of companies to innovate and require skilled labor force, (b) it underestimates the dynamics of power among classes in the capitalistic labor market and (c) it overestimates the direct link between the technological innovation and economic development. In the light of the above, the relation investment in education development appears more complicated than claimed by the human capital theorists. The positive correlation between the economic development and the level of investment in education seems easily interpreted as the influence of the former over the latter and not the opposite.

At the same time, taking up Romer's thesis, you might ask whether the increase in schooling, due to the Welfare growth, determines a positive feedback on the economic development, even as an indirect effect on the human capital. It also remains to clarify under which conditions you can still have an increase in the education level and also in economic development, whereas the schooling is influenced by the social stratification dynamics. In other words, is it possible to identify social mechanisms able to generate an inclusive economic development? And most important, in which terms does it make sense to invest in education? These questions lead us to revisit the concept of human capital, changing perspective.

### Political Economy, Social Stratification, and Local Societies

We propose to analyze the relation between investment in education and development, using the frame of political economy adapted to study socio-territorial units. In this respect, regions seem to constitute a good proxy of local societies in Italy because, since the Constitutional reform in 2001 (Law no. 3/2001), they became the reference area for local political decisions. Moreover, as Sassen (1994) and Scott (2001) stressed, the profound changes in the spatial organization of modern capitalist societies have promoted the importance of territorial units as the central nodes of the global economic flows. In Italy, local societies have taken shape around regional contexts (Bagnasco, 2012). Here, cities have generated new relations among urban and rural areas until to become socio-economic territorial platforms. In short, any regional unit of analysis has a peculiar social organization compared with the national and international context.

In the case of the Italian education system, it is important to remind that it is managed by the central government, but

its effectiveness depends on the cooperation between the local institutional actors (regional administration, local authorities) and central ones. Through integrated interventions (from pre-primary to adult education) and direct or indirect actions (i.e., scholarships, school bulging, local transport systems, etc.), the effectiveness of education policies depends on the local governance and its ability to implement them into local societies. For these reasons, a quantitative analysis on Italian regions was carried out using the average values of 45 variables referring to three dimensions: policy, economy, and education (see Appendix).

By using the PCA in two stages (Di Franco & Marradi, 2003), a series of synthetic indexes related to the 45 initial variables were built, not considering those variables less correlated among them. In particular, three components are interesting for our analysis (Table 1). The first is the most important component, because it stresses the *social investment in education policy* (in 1996-2003). It highlights the correlation between the expenditure in education and two indicators of child care services. The spending in education is indicated by the expenditure in this field compared with the school age population (3-18 years), which constitutes the potential demand of education. The other two indicators refer to child care services. They are not only instruments of work-family balance but also an action of a wider education policy that goes beyond, and precedes, the school education. The pre-primary education, in fact, is the starting point of a long educational path that can reach up to tertiary level.

In the social investment paradigm the leading idea is that Welfare is not a social cost but an investment and a particular emphasis is placed on the education policies both as a professionalization path (useful to find a qualified and stable job) and development of not instrumental cognitive skills (food education, the ability to enjoy the socio-cultural heritage, etc.). The political implications of this paradigm seem pretty clear. The scholars of the social investment theory consider the Welfare system as a tool to develop individual's capabilities (Sen, 1994) in order to realise a new universalism and, for this reason, social policies are not conceived to the economic system needs. As some analyses suggest (Del Boca & Pasqua, 2010; Esping-Andersen, 2005), investing in early childhood services can prevent the reproduction of class inequalities and determine future social benefits (i.e., improving their cognitive abilities, increasing their chances of scholastic success, etc.).

On the base of these considerations, the analysis aims to examine the relation between the principal component related to social investment in education in 1996 to 2003, the inequality index among households, and the other two components referring to 2004 to 2010. In particular, the best variable to represent the social stratification seems to be the unequal distribution of income. The second component, *the schooling capital*, refers to the schooling level in the Italian regions and corresponds to Romer's precondition to the human capital. Finally, the *territorial cognitive capital* component can be

**Table 1.** Social Investment in Education Policy, Schooling Capital, and Territorial Cognitive Capital.

Social investment in education policy (66.8%)		Schooling capital (76.5%)		Territorial cognitive capital (67.7%)	
Indicators	Factor score coefficients <sup>a</sup>	Indicators	Factor score coefficients	Indicators	Factor score coefficients
Spread of early childhood services (% of municipalities)	0.456	Graduates among 30-34 years old residents (%)	0.308	Research and development investments by companies (% of GDP)	0.310
Taking charge (weighted) of childhood services <sup>b</sup>	0.465	25-64 years old residents in lifelong learning (%)	0.249	Science and technology graduates (per 1,000 residents aged 20-29)	0.298
EUR expenditure in education per capita (per resident aged 3-18)	0.290	Education rate <sup>c</sup>	0.294	Readers, at least one book in a year (% of residents aged 6 and above)	0.300
		Higher schooling rate (20-24 years old residents with high school certificate at least)	0.288	Theater user, at least once in a year (% of residents aged 6 and above)	0.307

Source. Our elaboration on Istat (National Institute of Statistics) and Miur (The Ministry of Education, Universities and Research) data, average values 1996 to 2003 about the variables of social investment in education policy and average values 2004 to 2010 about the other ones.

Note. The variance of the indicators reproduced by component is shown in brackets.

<sup>a</sup>The factor score coefficients indicate the componential weight of each variable in the construction of a component, net of the weights of the other variables used in the construction of the same component. These coefficients are similar to the standardized coefficients of a multiple linear regression analysis, namely, the coefficients beta.

<sup>b</sup>Percentage of children aged 0 to 3 who have used the early childhood services (kindergarten, etc.) of the total population 0 to 3 years old.

<sup>c</sup>It is an index constructed from the percentage distribution of the population aged 15 and above by level of education. For each region, there was the sum of the percentages corresponding to each title of study weighted by the number of formal years required to reach it (respectively, 5, 8, 11, 13, 18 years).

considered as a variation of the human capital. It considers not only the aspects closely related to the world of work and the competitive strategies of firms but also the knowledge and cognitive skills useful to rise the culture consumption (reading books, going to the theater, etc.) by individuals. This factor allows us to understand the “cultural environment” in a specific area.<sup>2</sup> In summary, the territorial cognitive capital refers to the circular relationship between the type of production structure, the degree of qualification of labor force (and entrepreneurs), and the level of culture consumptions by general population. In this respect, the three principal components outlined have been used with the selected variables to investigate—through a path analysis—the relation between the investment in education and economic development in the Italian regions, conceived as local societies.

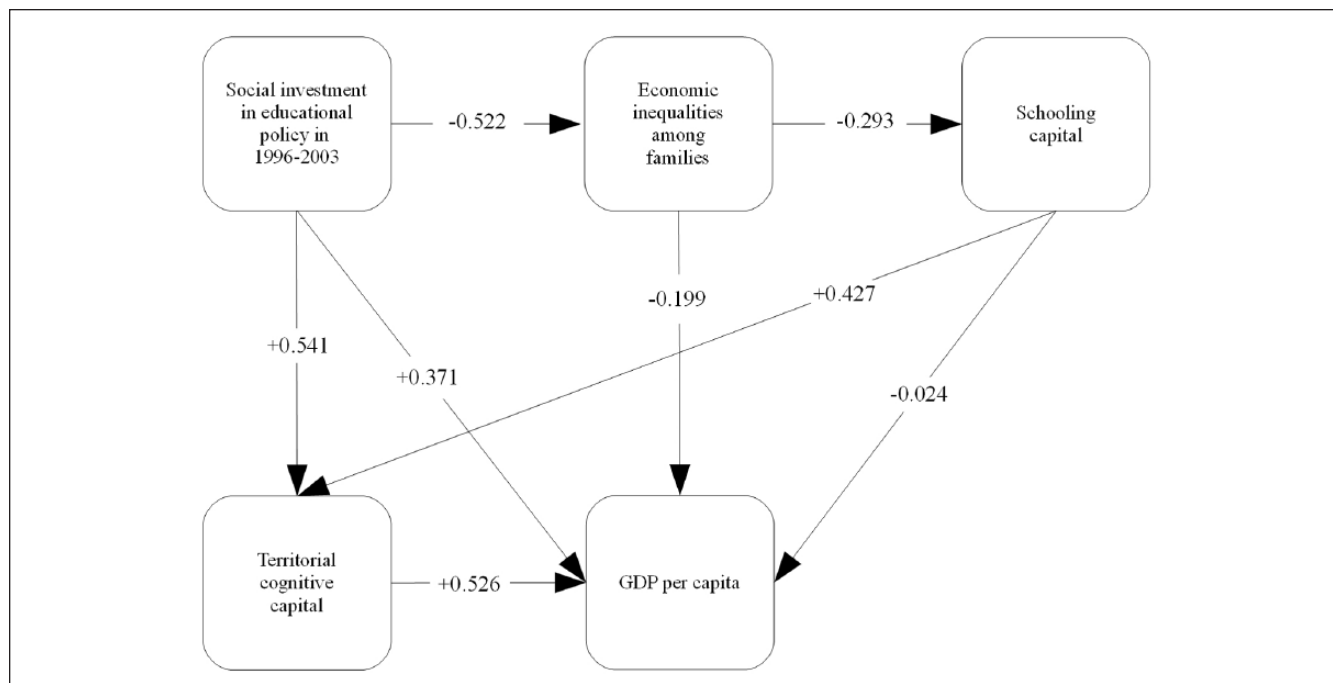
## The Role of the Investment in Education on the Development

We have used the Esping-Andersen’s (2005, 2013) perspective, in particular the concept of social investment, to investigate the relation between investment in education and economic development. Moreover, the issue of social inequalities stressed by the sociologists of education (Bowles & Gintis, 2003; Bukodi & Goldthorpe, 2012; Goldthorpe & Jackson, 2008; Shavit et al., 2005) was taken in account. Through this framework was identified a model of development paths in the Italian context (Figure 1).

It shows how regions that were oriented to education policies in 1996 to 2003—in particular both for the education expenditure and child care services—tend to have a better economic performance, at least in terms of GDP per capita, and social inclusion. The model fits the data for the 75.6% of the GDP regional variability. Our model seems also to contain the potential spurious effects that exogenous variables could play on the influence of investment in education on the GDP.

Briefly, following our model, the investment in education policy produces a positive direct effect on the development in 2004 to 2010, because it does raise the GDP per capita directly (0.371), indirectly—through the territorial cognitive capital increase ( $+0.284 = 0.541 \times 0.526$ )—and reduces the economic inequalities ( $0.104 = -0.522 \times -0.199$ ). The impact on GDP per capita through the schooling capital is irrelevant, even when a longer path that includes the positive influence of schooling capital on territorial cognitive one (indirect effect equal to 0.03) is taken in consideration. Also, the indirect effect of the investment in education is slightly higher than the direct effect (indirect effect = +0.414, total effect = +0.753). Research findings show that the economic return is achieved over time due to the effects that the investment in education has on other factors. In particular, investing in education policy helps not only to increase the wealth produced but also to reduce class inequalities, an important element in the scholastic success.

At this point, we have to try to understand why the investing in education produces the territorial cognitive capital,



**Figure 1.** The path diagram: The influence of social investment in education policy on economic system and social context over time.

innovates the socio-cultural context, and supports the propensity of firms to invest in R&D (research and development), namely, how it expands the demand of high-skilled jobs. The plausible explanation is twofold: On one hand, in the context where you invest more in training, education takes an instrumental meaning (and function) toward the labor market, because there is a high propensity of business innovation that leads to a better match between supply and demand of skilled labor. On the other hand, the model findings suggest how the local societies that invest in education believe in this resource, and the institutional investment in turn reinforces the symbolic value that local societies, entrepreneurs included, attribute to the education.

The indirect effect of the schooling capital on the territorial cognitive one—through the institutional investments in education—could reduce or prevent the issue of mismatch between intellectual unemployment, over-education of labor forces, and the needs of firms, a phenomenon common in several sub-regional Italian areas (Abburrà, 2012; Pastore, 2012). Nonetheless, the investment in education seems to represent a crucial factor that improves the “cultural environment” in local societies (here measured by the territorial cognitive capital factor), revealing a better cooperation between entrepreneurs, institutions, and university (Luciano & Pichierri, 2014; Ramella, 2013). Moreover, the symbolic function of education can become useful for an idea of development linked not only to GDP growth but also to the well-being. In fact, GDP increases, thanks to investment in education that in turn also reduces socio-economic inequalities, producing in this way a wider social inclusion.

In contrast to the human capital theorists, schooling capital has no particular effects on the economic inequalities. This capital is important for the indirect effect that has on GDP per capita through the mediation of territorial cognitive capital ( $+0.225 = +0.427 \times +0.526$ ), which schooling contributes significantly to rise ( $+0.427$ ). In other words, Romer’s thesis is confirmed, but as long as we consider that good levels of schooling are obtained thanks to the social investments. As suggested by Esping-Andersen (2013), in fact, investments in education fight the socio-economic inequalities. The schooling capital exerts only a relevant indirect effect on GDP—maintaining constant the effects of investment in education policy and the level of economic inequality—because it contributes to the territorial cognitive capital development, while schooling capital produces social innovation. On this point, we can observe that Romer’s (1990) argument (the growth of human capital affects the wealth produced as long as there is a good general education degree) is confirmed by the model, but our research stresses the importance of education policies for many other reasons. These policies, reducing socio-economic inequalities, may contribute to change the development pattern. In short, they make possible to combine economic growth and social equity. Then, this investment increases the schooling capital that produces beneficial effects on the economy and contributes to increase the territorial cognitive capital. Finally, the education policy has a positive effect, on equal terms, on the economy. The political choices that work for education, starting from early childhood services, are an instrument of social innovation. Therefore, the investment in education can

contribute to innovate the development model, expanding the meaning of this concept beyond the mainstream perspective of the economic growth (Parziale, 2012).

Nonetheless, through which mechanisms does the education policy reduce economic inequalities? Our interpretation is that child care services and education constitute a direct level employment, because they lead to employment of new teachers/educators and other *education professionals* (Parziale, 2011). Investing in education is also an indirect employment incentive. It improves the family–work balance stimulating the employment of women (and not only) and also this balance, in turn, stokes activities created by the dual-income families' needs (babysitting, elderly care), as Esping-Andersen (2013) pointed out. Hence, the increase of dual-income households, with the expansion of the employment rate, reduces economic disparities. Based on these evidences, we can theorize that the investment in education policy, when combined with spending on education in early childhood services, is useful to contrast in advance the class inequalities. These policies play a central role in limiting the “students selection differential” (Bourdieu & Passeron, 1979), because it impacts both on material factors (secondary component of educational inequalities) and immaterial ones (primary component), also increasing the symbolic value attributed to education by the lower classes.

## Conclusion

Comparing the social dynamics in Italian regions allowed us to unfold the mechanisms that seem to produce social innovation. In particular, the role of local societies in reorganizing territorial interventions of the Welfare system in education has been detected as a relevant factor. Although it can be argued that the different regional performances about the social inclusion can be mainly attributed to economic conditions (i.e., in richest regions the local development patterns are more inclusive), this standpoint seems not wholly right. In fact, if you consider the GDP per capita as an independent variable in our model, it reproduces only the 60% of the regional variability for the social investment.

Our thesis is that economic growth can increase the investments in Welfare, but this does not happen automatically, because political factors play a pivotal role in that process. In this respect, research findings highlight the importance of the investment in education, as the paradigm of social innovation suggests (Esping-Andersen, 2005, 2013; Hemerijck, 2012; Morel et al., 2012). Investment in education has not only an economic function (i.e., contrasting the income inequalities) but also a cognitive one, because it determines a positive influence on the social evaluation of education. In fact, findings reveal where investment in education (including early childhood services) is higher, scholastic capital is higher too, because the first factor reduces socio-economic inequalities. Moreover, educational inequalities seem to depend by a combination of different factors. First, the lower class students

cannot afford a long-term investment in education also because their expected benefits are lower compared with the middle class students (Goldthorpe, 2000). Second, low cultural capital reduces education value attributed by students and scholastic performance (Bernstein, 1975; Bourdieu, 1984; de Graaf, 2007; Weis, 2010). Finally, the asymmetric distribution of information about the labor market and schooling among social classes misguides lower class members in their training choices (Lareau & Weininger, 2008; Pavolini, 2013; Willis, 1977).

Our model suggests that investment in education tackles these factors because it influences the GDP and, above all, because it reduces socio-economic inequalities among families, producing a positive effect on other factors that in turn are correlated to the GDP. This outcome should be considered as an evidence of institutional possibilities to implement Welfare policies in the economic system, which also generates cognitive resources to develop individual capabilities to aspire and design the future. Only in these conditions, investment in education seems to become a source of social innovation, because it contrasts the tangible and intangible components of social stratification, and at the same time stimulates the cultural environment. Briefly, the relation between the investment in education and economic development is complex and, according to our research, it becomes positive if it first reduces socio-economic inequalities. Otherwise the influence of investment in education on economic development appears only half of that revealed through our model, if the relevant indirect effects on social stratification and cultural environment are compromised.

## Appendix

**Table A1.** Policy.

Variable	Source
Education and training expenditure (% on GDP)	Istat
Spread (% municipality) of early childhood services	Istat
Taking charge (weighted) of childhood services	Istat
Research and innovation public expenditure (% on GDP)	Istat
EUR expenditure in education per capita (per resident aged 3-18)	Istat
Financial (%) support to education (and training) expenditure by region and local authorities	Istat
Number of measures for right to study per 100 students	Miur
Number of college scholarships per 100 university students	Miur
EUR every college scholarship	Miur
EUR per university student (expenditure of policies for right to study)	Miur
University housing per 1,000 students	Miur
University housing allocated per 100 requests	Miur

Note. Istat = National Institute of Statistics; Miur = The Ministry of Education, Universities and Research.

**Table A2.** Economy.

Variable	Source
Unemployment rate	Istat
Capital intensity (gross fixed capital formation in % of GDP)	Istat
GDP per capita (concatenated values to 2005)	Istat
Relative poverty incidence	Istat
Economic inequalities among families (Gini's Index)	Istat
Investments in research and development by companies (% of GDP)	Istat
Families spending for education	Istat
Employment rate	Istat

Note. Istat = National Institute of Statistics.

**Table A3.** Education.

Variable	Source
Science and technology graduates (per 1,000 residents aged 20-29)	Istat
Percentage of residents aged 15-19 with at least secondary school	Istat
Readers, at least one book in a year (% of residents aged 6 and above)	Istat
Theater user, at least once in a year (% of residents aged 6 and above)	Istat
Museum and exhibition users (people who visited museums and/or exhibits at least once in a year per 100 residents aged 6 and older)	Istat
Graduates rate (% of residents aged 15 and above)	Istat
Education rate	Our analysis on Istat data
25-64 years old residents in lifelong learning (%)	Istat
High school failure rate	Istat, Miur
Students per class in public schools	Miur
Teachers per 100 students in public school	Miur
Young people who leave school early (% of residents aged 18-24 and without high school diploma)	Istat-Miur
Dropout rate in the first 2 years of higher school	Istat-Miur
Dropout rate in the first year of higher school	Istat-Miur
Higher schooling rate (20- to 24-year-old residents with high school certificate at least)	Istat
Students per class (public and private school)	Istat-Miur
Rate of students go from high school to the university	Istat-Miur
University enrollment rate	Istat-Miur
Number of people who obtain the diploma per 100 youngsters aged 19	Istat-Miur
Complete graduation rate (degree of 4-5 years)	Istat-Miur
Total graduation rate (including bachelor)	Istat-Miur

(continued)

**Table A3. (continued)**

Variable	Source
Percentage of residents aged 25-64 with at most junior high school certificate	Istat
Percentage of residents aged 30-34 with degree	Istat
Students enrolled in professional or technicians public school per 100 enrolled in the higher public school	Miur
Participation rate at higher school	Istat-Miur

Note. Istat = National Institute of Statistics; Miur = The Ministry of Education, Universities and Research.

### Authors' Note

This work comes from a common effort; however, if you would attribute the single sections, paragraphs 1, 3, and 4 were written by Fiorenzo Parziale, and paragraphs 2 and 5 by Ivano Scotti.

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### Notes

1. Parsons (1970), for example, analyzes the technological innovation as a source of change in the social structure due to the expansion of better paid skilled jobs. In this perspective, the increase of wage levels not only intensifies the educational investments in privileged social classes but also determines an intergenerational social mobility for lower classes. Nevertheless, functionalism does not examine the power dynamics between social classes, because technological innovations would automatically change the inequalities structure.
2. In other words, here the concept of human capital is placed on a higher level of generality that subsumes the concept of cultural capital attributed in this case to whole societies and not to individuals, like in Bourdieu (1984). So this concept is redefined as territorial cognitive capital.

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